





#### **Environmental Protection Agency**

Office of Pesticide Programs (7505C)
Washington, DC 20460

#### Notice of Supplemental Distribution of a Registered Pesticide Product

#### Instructions

After a registrant has obtained final registration for the basic product, the registrant may then supplementally distribute his/her product. One form must be submitted for each distributor product and must be signed by the distributor involved. The basic registration number and the distributor company number must be shown.

If a registrant has a potential distributor who does not have a company number assigned, she/he should have the distributor apply, on letterhead stationery, to the Registration Division to have a number assigned prior to submitting this form to the agency.

This Notice of Supplemental Distribution must be submitted by the basic registrant. The completed form must have the concurrence and signature of both the registrant and the distributor.

EPA Registration Number of Product	Distributor Company Number
83100-28 21B 6,2	83979
Note: Do not subm	it distributor product labels
Name of Registered Product (basic product name accepted by EPA) ROTAM Methomul 90SP Insecticide	Distributor Product Name NUDRIN SP Insecticide
Name and Address of Distributor (Type; include ZIP code) ROTAM NORTHAMERICA, INC. 1400 NW 107th Avenue Suite 310 Miami, FL 33172	
Read All Conditions	Before Signing
<ol> <li>the registered basic product.</li> <li>The labeling for the distributor product must bear the specific claims may be deleted if by doing so, no other.</li> <li>The product must remain in the manufacturer's unbrown.</li> <li>The label must bear the EPA registration number of the company number.</li> <li>Distributor product labels must bear the name and addror", "distributed by"; or "sold by" to show that</li> <li>All conditions of the basic registration apply equally to</li> </ol>	same claims as the basic product, provided, however, that er changes to the label are necessary.  The basic product, followed by a hyphen and the distributor's dress of the distributor qualified by such terms as "packed to the name is not that of the manufacturer.
Distril	butor
	Date  Strant  Stributor Product specified above, subject to the conditions specified on this  Date
FDA Form 9570 5 (Pay 9 94) Provide aditions are shouldto	White - FPA

## Material to be added to an e-Jacket/Jacket

Placement within the e-Jacket/jacket:  Default: (chronological, top = newest)  File Location: (eg. "before page 45 in .pdf")  Send to Data Extraction contractors this material:  Newly stamped accepted label
Default: (chronological, top = newest)  File Location: (eg. "before page 45 in .pdf")  Send to Data Extraction contractors this material:
Default: (chronological, top = newest)  File Location: (eg. "before page 45 in .pdf")  Send to Data Extraction contractors this material:
File Location: (eg. "before page 45 in .pdf")  Send to Data Extraction contractors this material:
Send to Data Extraction contractors this material:
□ Notification
New CSF
☐ Other:

3. Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer: Tom Harris

Phone: 308-9423

Division: RD

Date:



#### reg notices: methomyl 83100-27, 83100-28

Thomas Harris o Frank Sobotka

04/05/2011 05:11 PM

Dr. Sobotka,

Attached please find the registration notice and stamped labels for two Rotam methomyl end-use products. Thanks for your assistance in providing information as needed and revising the labels in a timely manner. I'll send the reviews in a separate email tomorrow; I'm still waiting for a copy of one review.

83100-27



083100-0027,20110405.reg notice stamped label.ac.ocr.pdf

83100-28



083100-0028.20110405.reg notice stamped label.ac.ocr.pdf

**Tom Harris** EPA/OCSPP/OPP/RD/IRB voice: (703) 308-9423 (703) 308-0029

harris.thomas@epa.gov

visit http://www.epa.gov/pesticides



## U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505C) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460

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XI	1111-77	٤

EPA Reg.

Number:

Date of Issuance:

April 5, 2011

Date of Expiration:

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Term of Issuance:

conditional

Name of Pesticide Product:

Rotam Methomyl 90SP Insecticide

NOTICE OF PESTICIDE:

x Registration Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Rotam Agrochemical Company, Ltd. c/o IPM Resources LLC (agent) 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

- 1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
- 2. Make the following label changes before you release the product for shipment:
  - a. Add the phrase "EPA Registration Number 83100-28".
- 3. Per the indicated EPA Guidelines, submit the following within the months indicated as measured from the effective date of this registration.
  - a. One year storage stability (830.6317) (measurements at 0, 3, 6, 9, and 12 months). Submit in both electronic and hard copy format. Due within 18 months.
  - b. Corrosion characteristics (830.6320) (measurements at 0, 3, 6, 9, and 12 months). Submit in both electronic and hard copy format. Due within 18 months.
- 4. Submit two (2) copies of the final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A copy of the label stamped "accepted with comments" is enclosed for your records. If you have any questions, please contact Tom Harris at (703) 308-9423 or harris.thomas@epa.gov. enclosure

Signature of Approving Official:

Date:

APR - 5 2011

Thomas C. Harris/

Insecticide Rodenticide Branch Registration Division (7505P)

EPA Form 8570-6



**Due to High Acute Toxicity to Humans** 

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP

1A

INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient	By Weight
Methomyl	
(S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)	90%
Other Ingredients	10%
TOTAL	100%

EPA Reg. No. 83100 - 28

EPA Est. No.: 69821-CHN-005

# DANGER POISON



#### **PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions for Use on inside booklet.

Manufactured by:

Rotam Agrochemical Company Ltd.

7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

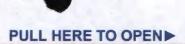
ACCEPTED
With COMMENTS
In EPA Letter Dated:
APR - 5 2011

Net Contents:
Packets/Container
TBA

Under the Federal Insecticide, Fungicide and Rodenticide Act, As amended, for the pesticide Registered under EPA Reg. No:

83100-28





## RESTRICTED USE PESTICIDE

**Due to High Acute Toxicity to Humans** 

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TOTAL	100%

EPA Reg. No. 83100 - 28

to you in detail.)

EPA Est. No.: 69821-CHN-005

Manufactured by:
Rotam Agrochemical Company Ltd.
7/F Cheung Tat Centre
18 Cheung Lee Street
Chai Wan, Hong Kong
1-866-927-6826

Net Contents:
Packets/Container
TBA

# KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it

Refer to inside label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions For Use.

## FIRST AID (N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

## ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention. **POISONING SYMPTOMS** — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

#### **NOTE TO PHYSICIAN**

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.

#### PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Fatal if swallowed. May be fatal if inhaled or gets in eyes. Do not breathe dust. Do not get in eyes. Avoid contact with clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- Long sleeve shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- Socks and chemical resistant footwear.
- Protective eyewear.
- Chemical resistant apron.
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROL STATEMENTS**

Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted

to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

Pilots must not assist in the mixing and loading operations.

## USER SAFETY RECOMMENDATIONS USERS SHOULD:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.
- Remove and wash contaminated clothing before reuse.

#### **ENVRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

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## DIRECTIONS FOR USE Restricted Use Pesticide

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all >14 mils
- · Shoes plus socks
- Protective eyewear

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Do not formulate this product into other End-use products without written permission from Rotam.

Do not apply thru Drip Chemigation unless accompanied by Rotam Supplemental Labeling.

ROTAM METHOMYL 90SP insecticide should be used only in accordance with directions for use on this label or in separate Rotam supplemental labeling. Rotam will not be responsible for use of the product in a manner not specified by Rotam in the product's labeling and User assumes all risk for such use.

ROTAM METHOMYL 90SP is a dry powder to be dissolved in water for application by mechanical ground, overhead sprinkler, or aerial application Hand-

held equipment is \_\_\_\_ibited for application to crops.

Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Pilots must not assist in the mixing and loading operations.

Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

#### **RESISTANCE MANAGEMENT**

For resistance management, ROTAM METHOMYL 90SP insecticide is a group 1A insecticide. Repeated and exclusive use of ROTAM METHOMYL 90SP or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org.

#### INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### SCOUTING

Monitor insect populations to determine whether or not there is a need for application of ROTAM METHOMYL 90SP based on locally determined economic thresholds. More than one treatment of ROTAM METHOMYL 90SP may be required to control a population of pests.

#### **BENEFICIAL ANTHROPODS**

ROTAM METHOMYL 90SP at rates of 1/8 to 1/4 lb. per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying ROTAM METHOMYL 90SP.

Fill spray tank 1/4 to 1/2 full of water. Add ROTAM METHOMYL 90SP directly to spray tank. Carefully open the outer barrier bag containing ROTAM METHOMYL 90SP in a water soluble bag. Do not cut open the outer barrier bag. Invert the outer barrier bag allowing the inner water soluble bag to fall directly into the spray tank. Do not allow packets to become wet prior to adding to the spray tank. Do not handle, open, rip, tear, cut or perforate the inner water soluble bag. Mix thoroughly to fully dissolve the insecticide; once dissolved continued agitation is not required. Use mechanical or hydraulic means; do not use air agitation. Be sure the soluble packet is completely dissolved before adding any other ingredients. Spray mix should not be stored overnight in spray tank.

Compatibility: Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use ROTAM METHOMYL 90SP with Bordeaux mixture (copper sulfate and hydrated lime), "Du Ter" (triphenyltin hydroxide), lime sulfur, "Rayplex" iron nor in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

Tank-mix solutions containing Boron may affect solubility of the water soluble film. When using Boron containing solutions in a tank-mix, follow these procedures:

- Add the correct amount of ROTAM METHOMYL 90SP water soluble packets first
- -Be sure the soluble packets are completely dissolved
- -Introduce Boron containing solutions last

If the above procedure cannot be followed, and Boron is an essential part of the spray mix, substitute ROTAM METHOMYL 29LV formulation for the water soluble packets.

Tank Mix Sequence: Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

- 1. ROTAM METHOMYL 90SP and other products in water soluble bags.
- 2. Water dispersible granules
- 3. Wettable powders
- 4. Water based suspension concentrates
- 5. Water soluble concentrates

- 6. Oil based sension concentrates
- 7. Emulsifiable concentrates
- 8. Adjuvants, surfactants, oils
- 9. Soluble fertilizers
- 10. Drift retardants

Follow local practice and manufacturer's recommendation.

#### **APPLICATION**

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of ROTAM METHOMYL 90SP should be applied, as needed, to keep pest populations within threshold limits. On most crops, ROTAM METHOMYL 90SP should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since ROTAM METHOMYL 90SP is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for peaches and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.

For certain crops a minimum of 1 gallon per acre may be used providing the following conditions are met:

- -equipment is adjusted to distribute spray uniformly over the spray swath,
- wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area,
- local regulations do not prohibit low-volume aerial sprays,
- -use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa Celerv Peas (succulent) Collards Peppermint Anise Peppers **Asparagus** Corn Barley Cotton Potato Beans Cucumber Rye Soybean Broccoli Lettuce Brussels sprouts Melons Spinach Cabbage Sugar beet Mint Carrot Oats Summer Squash Cauliflower Peanuts Wheat

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

#### SPRAY TANK CLEANOUT

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other a priated application equipment. Take necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

#### CHEMIGATION

Instructions for the Use of ROTAM METHOMYL 90SP on Alfalfa, Barley, Oats, Green and Dry Bulb Onions, Potatoes, Rye, Sugar Beets and Wheat Using Overhead Sprinkler Chemigation

Do not apply thru Drip Chemigation unless accompanied by Rotam Supplemental Labeling.

Chemigation: Overhead sprinkler chemigation is allowed for use in alfalfa, barley, oats, onions, potatoes, rye, sugar beets, and wheat. Refer to supplemental, or Special Local Need (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of ROTAM METHOMYL 90SP as high as possible in the application. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. ROTAM METHOMYL 90SP is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of ROTAM METHOMYL 90SP should take place when the insects are active and most likely to come into direct contact with the application.

#### Types of Irrigation Systems

ROTAM METHOMYL 90SP may be applied through overhead sprinkler irrigation systems for control of various pests. Center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems; such as end tow, side (wheel) roll and solid set, may be used if they provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 90SP through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

## General Directions for Chemigation Preparation

A pesticide tank is recommended for the application of ROTAM METHOMYL 90SP in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 90SP into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 90SP. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7)

Injection into Chemiation Systems

Inject the proper amount of the ROTAM METHOMYL 90SP solution to the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing ROTAM METHOMYL 90SP into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing ROTAM METHOMYL 90SP to the irrigation water line, and apply no more than 0.2 inches of water per acre, just before the end of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 90SP must provide for uniform distribution of ROTAM METHOMYL 90SP treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

**Equipment Calibration** 

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 90SP. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

**Monitoring of Chemigation Applications** 

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 90SP is in the irrigation water.

#### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

- 1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut

off the pesticide in on pump when the water pump motor pe

- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### Posting of Areas to be Treated

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices be plugged to prevent contamination of these areas.

Do not apply when and speed favors drift beyond the area anded for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

#### Cleaning the System

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid offtarget drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

## AERIAL DRIFT REDUCTION ADVISORY INFORMATION Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See WIND, TEMPERATURE AND HUMIDITY, and TEMPERATURE INVERSIONS sections of this label.

#### Controlling Droplet Size - General Techniques

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### **Controlling Droplet Size - Aircraft**

- Number of No ses Use the minimum number of nozzethat provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel
  to the airstream produces larger droplets than other orientations and is the
  recommended practice. Significant deflection from horizontal will reduce
  droplet size and increase drift potential.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
- Boom Length For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application Height Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- Swath Adjustment When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downward edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

#### **BOOM HEIGHT**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. AVOID GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

## AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

## AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

Adjust deflectors and aiming devices so that spray is only directed into the canopy.

Block off upward pointed nozzles when there is no overhanging canopy.

Use only enough air volume to penetrate the canopy and provide good coverage.

Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.



### CROP AND RATE CHARTS



Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid Lygus Bugs Blotch Leafminer Aphids Egyptian Alfalfa Weevil Larvae Loopers Beet Armyworm Armyworm Alfalfa Caterpillar Fall Armyworm Western Yellowstriped Armyworm Yellowstriped Armyworm	1/2 – 1	7*	48 hrs
	Alfalfa Weevil Larvae	1		
	Variegated Cutworm	1/4 - 1		
	Do not apply more than a Do not make more than a Chemigation: ROTAM ME For best results, use the hi inches of water per acre.	4 pounds of ROTAM MET 10 applications per crop. THOMYL 90SP may be a		
Anise (Fennel)	Cabbage Looper	1	7	48 hrs
	Beet Armyworm	1/2 - 1	Statistical State of the State	70 1113
	Do not apply more than a Do not make more than 1		HOMYL 90SP per acre per crop.	
Apple( Ground application only)	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug	1/2 - 1 *	14	72 hrs
	Codling Moth (10-12 day spray intervals)			
	Leafrollers (Fruit-tree, Obliquebanded, Redbanded, Variegated) Lesser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	1*		
	Do not apply more than a Do not make more than a is 7 days.		HOMYL 90SP per acre per crop. inimum interval between treatments	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Asparagus	Beet Armyworm, Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/2		
		5 pounds of ROTAM METI 8 applications per crop.	HOMYL 90SP per acre per crop.	
Avocado	Western Avocado Leafroller Omnivorous Looper	1/2 - 1	1	48 hrs
		1 pound of ROTAM METH 2 applications per crop.	OMYL 90SP per acre per crop.	
Barley	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	Do not make more than Chemigation: ROTAM Notemigation. For best reading and the information are all leaf beetle: ROTAM Note and the information are all leaf beetle eggs to be timed to correspond that the total achieve maximal registered in California. Aphids: For aphid contadverse environmental contage and contadverse environmental contage and cont	4 applications per crop. METHOMYL 90SP may be esults, use the highest lister is of water per acre. See Comment of the control of the control of the control of the conditions (such as, extrematical effect to begin wheat aphid need to begin	applied by overhead sprinkler d rate of ROTAM METHOMYL 90SP. HEMIGATION section for more in provide contact ovicidal effect on label directions. Application should wly laid eggs or in anticipation of egg this pest stage (egg) is not currently growing and not under stress from the temperatures or drought).	
Beans (Succulent) Including: Kidney, Lima, Mung, Navy, Pinto, Snap, Wax, Broad, Fava, Asparagus, Blackeyed peas Cowpeas,	Leafhopper Mexican Bean Beetle	1/4 – 1	Succulent Beans 1/4 – 1/2 lb.– 1, over 1/2 lb. – 3; 3 Vines 7 Hay	48 hrs
Chick peas, Garbanzo beans,				

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Grain lupine	Beet Armyworm Corn Earworm Saltmarsh Caterpillar, Yellowstriped Armyworm Western Yellowstriped Armyworm, Lygus Bugs Thrips Aphids Loopers*	1/2 – 1		
	European Corn Borer (Ovicide & Larvicide) Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals to control eggs and larvae			
	Spotted Cucumber Beetle	1/4 – 1/2		
Beans (Dry) (Follow Beans, Succulent)	Do not make more than * Do not use for Loopers  (Follow Beans, Succulent)	10 applications per crop. in AL & GA.	HOMYL 90SP per acre per crop.  14 - Dry Beans * 14 - Vines * 14 - Hay *	48 hrs
	Do not apply more than 5 Do not make more than 5 Do not use for Loopers ir *Do not apply within 14 d	10 applications per crop.  1 AL & GA.	HOMYL 90SP per acre per crop.	
Beets (Table)	Imported Cabbageworm	1/4 - 1	0 - roots 10 - tops	48 hrs
	Beet Armyworm Cabbage Looper Diamondback Moth	1/2 - 1		
	Cucumber Beetle Variegated Cutworm	1/2		
	Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 8 applications per crop.			
Bermudagrass pasture	Fall Armyworm Armyworm Striped Grass Looper	1/4 - 1	7 - Forage * 3 - Dehydrated Hay **	48 hrs
	Do not make more than 4	4 applications per crop. s of feeding forage or allowing	OMYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	1/2	3	48 hrs
	Cranberry Fruitworm* Cherry Fruitworm*	1/2 - 1		
	Flea Beetle (larvae) Sawfly (larvae) Blueberry Leafroller	1		
	Blueberry Maggot	1/4 - 1/2		
	Do not apply during blo Do not apply more than 4 Do not make more than * For ground use only.	pounds of ROTAM METHOM applications per crop.	/IYL 90SP per acre per crop.	
Broccoli	Loopers, Diamondback Moth	1/2 - 1 **	.3	48 hrs
	Imported Cabbageworm	1/4 - 1 **		
		10 applications per crop; n	HOMYL 90SP per acre per crop ninimum interval between treatments	
Brussels Sprouts	Loopers Imported Cabbageworm, Diamondback Moth	1/2 - 1 **	3	48 hrs
	Variegated Cutworm	1/2 **		
		0 applications per crop; minima	HOMYL 90SP per acre per crop. um interval between treatments is 2 days.	
Cabbage	Loopers * Diamondback Moth Fall Armyworm	1/2 - 1 **	1	48 hrs
	Imported Cabbageworm	1/4 - 1 **		
	Variegated Cutworm	1/2 **		
		5 applications per crop; minimus in AL & GA.	HOMYL 90SP per acre per crop. um interval between treatments is 2 days.	
Carrot	Beet Armyworm Armyworms Aster Leafhopper	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/4 - 1/2		
		7 pounds of ROTAM METH 10 applications per crop.	HOMYL 90SP per acre per crop.	
Cauliflower	Imported Cabbageworm	1/4 - 1 **	3	48 hrs
	Loopers Diamondback Moth	1/2 - 1 **		
	Variegated Cutworm	1/2 **		

		METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
		applications per crop; mi	METHOMYL 90SP per acre per crop. nimum interval between treatments is 2 days.	
Celery	Beet Armyworm Aster Leafhopper	1/2 - 1	7	48 hrs
	Loopers	1		
	Variegated Cutworm	1/2		
	Armyworms	1/4 - 1		
	Do not apply more than Do not make more than		METHOMYL 90SP per acre per crop.	
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1/2 - 1	80	48 hrs
	Do not apply more than 2 Do not make more than		METHOMYL 90SP per acre per crop.	
Chinese Cabbage	Loopers Beet Armyworm	1/2 - 1*	10	48 hrs
	Do not apply more than to not make more than thinimum of 25 gallons	10 applications/crop.	METHOMYL 90SP/acre/crop. und or 5 gallons by air.	
Collards (Fresh market	Diamondback Moth Variegated Cutworm	1/2	10	48 hr
(Fresh market only)	Imported Cabbageworm Beet Armyworm Loopers*	1/2 - 1		
	Do not apply when temp Do not apply when crop Do not apply more than to Do not make more than to * Do not use for Loopers	is less than 10" tall. 6 pounds of ROTAM N 8 applications per crop	METHOMYL 90SP per acre per crop.	
Corn (Field, Popcorn & Seed)	Earworm (Ovicide/Larvicide) Armyworm Fall Armyworm European Com Borer- Ears 1-3 days or as needed Com Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids	1/4 - 1/2	21- Ears 3 - Forage* 21 - Stover*	48 hrs
	Variegated Cutworm, Beet Armyworm	1/2		
	Do not make more than *Corn forage is green ac then plants can be fed di	10 applications per cro tively growing plants the rectly to animals or us main after removal of t	hat are harvested with the ears intact, ed to make silage. Corn stover are the he grain at full plant maturity. These	
Corn (Sweet)	Earworm-Whorl as needed	1/3 - 1/2	0 - Ears	48 hrs
	Fall Armyworm	1/4 - 1/2	3 - Forage	1

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
	Earworm,- (Ovicide/Larvicide) European Corn Borer- Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids			
	Variegated Cutworm Beet Armyworm	1/2		
	area to determine crop : Do not apply more than	safety before full scale s 7 pounds of ROTAM M	eptible to methomyl injury. Treat a small spraying. ETHOMYL 90SP per acre per crop. p; minimum interval between treatments	
Cotton All U.S.	Ovicide/Larvicide - Bollworm, Tobacco Budworm (Initiate schedule when significant numbers of eggs are present. Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) start treatment on low level population for suppression.	1/8 - 1/4 (see Insect Predator Section)	15	72 hrs
	Cotton Leafworm Cotton Fleahopper (as needed)	1/4 - 1/2 1/8 - 1/4		
	Aphids, Thrips	1/4		
East of Rockies Only	(Early Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adults and nymphs) Use as occasional spray in regular schedule but not more often than every 10	1/2		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
East of Rockies Only	(Late Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adult and nymphs). Up to 3 applications at 3-5 day intervals after desired boll load set on plants.	1/2 - 3/4	15	72 hrs
Texas	Cotton Aphid	1/4 - 2/3		2
West of Rockies only	Larvicide for worms Bollworm, Fall Armyworm, Tobacco Budworm, Lygus Bugs Beet Armyworm	1/2 - 3/4		
	Cotton Leafperforator	1/3 - 3/4		
	Do not make more than	2 pounds of ROTAM METH 8 applications per crop .	HOMYL 90SP per acre per crop.	
	Do not apply more than Do not make more than Use may redden cotton Do not graze or feed.	2 pounds of ROTAM METH		48 hrs
Cucumber	Do not apply more than Do not make more than Use may redden cotton	2 pounds of ROTAM METH 8 applications per crop . If excessive stop or alternation	ate with other insecticides.	48 hrs
Cucumber	Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm	2 pounds of ROTAM METH 8 applications per crop . If excessive stop or alternation	ate with other insecticides.	48 hrs
Cucumber	Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than	2 pounds of ROTAM METH 8 applications per crop . If excessive stop or alterna 1/2 - 1	ate with other insecticides.	48 hrs
	Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than	2 pounds of ROTAM METH 8 applications per crop . If excessive stop or alterna 1/2 - 1	ate with other insecticides.  1/2 lb 1  Over 1/2 lb 3	
Cucumber	Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than	2 pounds of ROTAM METH 8 applications per crop . If excessive stop or alternative and the stop of the	ate with other insecticides.  1/2 lb 1 Over 1/2 lb 3	48 hrs
	Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm Com Earworm	2 pounds of ROTAM METH 8 applications per crop . If excessive stop or alternative and the stop of the	ate with other insecticides.  1/2 lb 1 Over 1/2 lb 3	
	Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm Com Earworm	2 pounds of ROTAM METH 8 applications per crop . If excessive stop or alternative stop	HOMYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Garlic		6 applications per crop.	7 HOMYL 90SP per acre per crop.	48 hrs
Grapefruit CA, AZ & HI only	Thrips Fruittree Leafroller Orange Tortrix Western Tussock Moth Beet Armyworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop.			
Horseradish Ground application only	Aphids Thrips	1/2	65	48 hrs
	Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop.			

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Leafy Green Vegetables: Beet (tops) Dandelions, Kale,	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1/2 - 1	10	48 hrs
Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Do not apply more than 4 place than 4 place than 8 are than 8 are the than 8 are the than 8 are the than 8 are the than 8 are than 8 are the than 8 are the than 8 are than 8 ar	applications per crop .	MYL 90SP per acre per crop.	
Lemon CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 Do not make more than 4	oounds of ROTAM METHO applications per crop.	MYL 90SP per acre per crop.	
Lentils	Western Yellowstriped Armyworm	1/2 - 1	21	48 hrs
	Do not apply more than 1 pound of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 2 applications per crop.			
Lettuce	Alfalfa Looper	1/4 - 1	1/4-1/2 lb 7	48 hrs
(Head and Leaf varieties)	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1/2 - 1	over 1/2 lb 10	
	Variegated Cutworm	1/2		
	Do not make more than 15 2 days.  Lettuce (leaf varieties)  Do not apply more than 4 p  Do not make more than 8 a  days.	applications per crop; mini counds of ROTAM METHO applications per crop; minin	MYL 90SP per acre per crop. mum interval between treatments is MYL 90SP per acre per crop. num interval between treatments is 2	
Melons Including: Canteloupe Casaba Santa Claus melon Crenshaw melon Honeydew melon Honey balls Persian melon Golden Pershaw	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1/2 - 1	1/2 lb 1 over 1/2 lb 3	48 hrs
melon	Variegated Cutworm	1/2		100
Mango melon Pineapple melon Snake melon Watermelon	Do not apply more than 6 p Do not make more than 12		MYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI	
Mint (Peppermint,	Variegated Cutworm Alfalfa Looper	1	. 14	48 hrs	
Spearmint)	Flea Beetles	3/4 - 1			
	Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 4 applications per crop.				
Nectarine	Thrips	1/2 - 1	1	72 hrs	
CA & AZ only	Do not apply more than 3	IYL 90SP per acre per crop.			
Oats	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs	
	Do not make more than 4 applications per crop. Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: ROTAM METHOMYL 90SP can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.  **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).				
Onland	Beet Armyworm	1/2 - 1 **	7 - Green and	48 hrs	
Onions (Green & Dry Bulb)	Thrips* Variegăted Cutworm Black Cutworm	1 **	Dry Bulb Onions		
	Onions, green Do not apply more than 6 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 8 applications per crop; minimum interval between treatments is 5 days. Onions, dry bulb Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 8 applications per crop; minimum treatment interval between treatments is 5 days.  *Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation to control thrips. Begin applications before thrip populations reach 3-5 thrips per plant. For best results, add a wetting agent. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *** Add a wetting agent to improve coverage.				

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI	
Oranges CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruittree Leafroller Beet Armyworm Citrus Cutworm	1/2 - 1	1	72 hrs	
		Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 4 applications per crop.			
Peaches	Catfacing Insects (Plant Bugs and Stink Bugs) - begin at petal fall and continue in cover sprays at 7-to 10-day intervals Oriental Fruit Moth* -begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use. Green Peach Aphid	1 lb (or 1/4 lb per 100 gal up to 400 gal per acre)	4	4 days	
Peanuts	Do not apply more than 6 p Do not make more than 6 p * Oriental Fruit Moth (Grou	applications per crop. ind Application Only).	HOMYL 90SP per acre per crop.	40 has	
	Potato Leafhopper Fall Armyworm	1/4 - 1	21	48 hrs	
	Beet Armyworm	3/8 - 1			
	Green Cloverworm Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Granulate Cutworm	1/2 - 1			
	Do not make more than 8 at * ROTAM METHOMYL 903 **Soybean Looper is difficu	applications per crop. SP has ovicidal and larvi ult to control.	HOMYL 90SP per acre per crop.  cidal control on corn earworm.  Jse higher rate for severe infestations.		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI	
Pears Northeast only	Green Fruitworm Oblique banded Leafroller	1/2 - 1 *	7	48 hrs	
	Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 2 applications per crop.  * Apply in a minimum of 50 gallons of water per acre.				
Peas (succulent) Including: Pigeon peas Chick peas Garbanzo beans Dwarf peas	Alfalfa Looper Cabbage Looper* Pea Aphid Beet Armyworm Saltmarsh Caterpillar Variegated Cutworm	1/2 - 1	1 - Peas 5 - Forage 14 - Hay	48 hrs	
Garden peas Green peas English Peas	Alfalfa Caterpillar Armyworm Green Cloverworm	1/4 - 1			
Field peas Edible pod peas	Do not apply more than 3 Do not make more than 6 days. * Do not use for Cabbage	applications per crop; mi	HOMYL 90SP per acre per crop.  nimum interval between treatments is 3		
Pecans	Aphids	1/2 - 1	30	48 hrs	
Southeast only	Do not apply more than 7 pounds of ROTAM METHOMYL 90SP/acre/crop.  Do not make more than 7 applications per crop.				
Peppers Including: Bell Hot Pimentos	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1/2 - 1	3	48 hrs	
Sweet	Variegated Cutworm	1/4 - 1/2		1-2-1	
	European Corn Borer	1		4	
	Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 10 applications per crop.				
-1-	Omnivorous Leafroller	1	14	48 hrs	
Pomegranates	Do not apply more than 2 Do not make more than 2	2 pounds of ROTAM MET	HOMYL 90SP per acre per crop.		
Potato	Tuberworm* Loopers Aphids Beet Armyworm Leafhoppers Fall Armyworm	1/2 - 1	6	48 hrs	
	Variegated Cutworm Flea Beetles	1/2		18.8	
	Do not apply more than to Do not make more than		HOMYL 90SP per acre per crop.		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Potato (cont.)	Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section.  *Repeat applications of ROTAM METHOMYL 90SP on a 5-7 day schedule, or longer as needed, to control tuber worm populations. An application schedule of effective insecticides with different modes of action may be needed to keep foliar feeding larval populations as low as possible prior to harvest to reduce the risk of larval damage to the tubers. Failure to adequately control tuberworm larvae prior to crop senescence or vine kill increases the risk of tuber damage.			
Rye	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop.  Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: ROTAM METHOMYL 90SP can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.  **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			
Sorghum	Sorghum Webworm	1/2 *	14 **	48 hrs
Including: Sudangrass (Except Sweet Sorghum)	Sorghum MidgeApply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Corn Earworm Armyworm	1/4 - 1/2 *		
	Do not make more than 2 * Minimum of 10 gallons p	pound of ROTAM METHOMYL 90S applications per crop. er acre by ground or 2 gallons per a days of feeding forage or cutting for	cre by air.	-

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Soybeans	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Com Earworm Light to Moderate infestations	1/8 - 1/4 (see Insect Predator section)	14 - Soybeans 3 - Forage 12 - Hay	48 hrs
	Moderate to severe infestations	1/4 - 1/2		
	Soybean Aphid	1/6 - 1/3		
	Beet Armyworm Salt Marsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper Light to Moderate infestations	1/4 - 3/8		
	Moderate to severe infestations	3/8 - 1/2		
	Do not apply more than 1 make more than 3 applica	.5 pounds of ROTAM METH ations per crop.	OMYL 0SP per acre per crop. Do not	
Spinach	Alfalfa Loopers Cabbage Looper Beet Armyworm Fall Armyworm	1/2 - 1	7	48 hrs
	Variegated Cutworm	1/2		
	Do not apply when minim	um daily temperature is 32° less than 3" diameter.		
		pounds of ROTAM METHO	MYL 90SP per acre per crop.	
Sugar Beet	Do not apply more than 4	pounds of ROTAM METHO	MYL 90SP per acre per crop.  30 -Tops 21 - Roots	48 hrs

nsects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 10 applications per crop.  *Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation to control beet armyworm, aphids and western yellowstriped armyworm. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.			
Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1/2 - 1	1/2 lb 1 day over 1/2 lb 3 days	48 hrs
Do not apply more than 6 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 12 applications per crop.  *Fruit of the Gourd (Cucurbit accae) family that are consumed when immature, 100% of the fruit is edible cooked or raw, once picked cannot be stored, has a soft rind which is easily penetrated, and if seeds were harvested they would not germinate.			
Thrips Western Tussock Moth Orange Tortrix, Beet Armyworm	1/2 - 1	1	72 hrs
Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop.			-
Flea Beetle Hornworm	1/4 - 1/2	5 - Flue cured 14 - Air or fire cured	48 hrs
Loopers Aphids Tobacco Budworm Fall Armyworm	1/2		
	Do not apply more than 5 por not make more than 10 at Chemigation: ROTAM MET chemigation to control beet best results, use the highest inches of water per acre. Set Loopers  Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Do not apply more than 6 por Do not make more than 12 at Fruit of the Gourd (Cucurbif fruit is edible cooked or raw, penetrated, and if seeds were seed and if seeds were seeds and if seeds were seed and if seeds were seeds and i	Do not apply more than 5 pounds of ROTAM METHOMYL 90 Do not make more than 10 applications per crop.  *Chemigation: ROTAM METHOMYL 90SP may be applied by chemigation to control beet armyworm, aphids and western y best results, use the highest listed rate of ROTAM METHOMY inches of water per acre. See CHEMIGATION section for mo  Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Do not apply more than 6 pounds of ROTAM METHOMYL 90 Do not make more than 12 applications per crop.  *Fruit of the Gourd (Cucurbit accae) family that are consumed fruit is edible cooked or raw, once picked cannot be stored, hippenetrated, and if seeds were harvested they would not germ  Thrips Western Tussock Moth Orange Tortrix, Beet Armyworm  Do not apply more than 3 pounds of ROTAM METHOMYL 90 Do not make more than 4 applications per crop.  Flea Beetle Hornworm  Loopers Aphids Tobacco Budworm	Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  **Chemigation: ROTAM METHOMYL 90SP per acre per crop.  **Chemigation: ROTAM METHOMYL 90SP per acre per crop.  **Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation to control beet armyworm, aphids and western yellowstriped armyworm. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  **Loopers

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Tomato (Including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/2		
	Do not make more than 16	applications per crop. y more than 5 pounds of F	OMYL 90SP per acre per crop ROTAM METHOMYL 90SP per acre	
Turf (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	1 (2/5 ozs. per 1000 sq. ft.)		48 hrs
	Do not apply more than 4 p Do not make more than 4 a Do not graze or feed.		OMYL 90SP per acre per crop.	
	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
Wheat	Do not make more than 4 a Chemigation: ROTAM MET chemigation. For best resul Apply in 0.1 to 0.2 inches o information.  *Cereal leaf beetle: ROTAM cereal leaf beetle eggs whe timed to correspond with the to achieve maximum ovicid in California.  **Aphids: For aphid control, adverse environmental control.	pplications per crop. HOMYL 90SP may be apts, use the highest listed if water per acre. See CHIM METHOMYL 90SP can applied according to late appearance of newly lai al effect. Use on this pest crop must be actively graditions (such as, extreme	polied by overhead sprinkler rate of ROTAM METHOMYL 90SP. EMIGATION section for more provide contact ovicidal effect on bel directions. Application should be id eggs or in anticipation of egg hatch a stage (egg) is not currently registered owing and not under stress from temperatures or drought). gin when aphid population is low (<10	

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**PESTICIDE STORAGE:** Handle this package carefully to prevent breakage of inner bag when stored at low temperatures. Allow to warm above 50 Deg.F for normal handling. Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam Agrochemical Company Limited or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam Agrochemical Company Limited and Seller harmless for any claims relating to such factors.

Rotam Agrochemical Company Limited warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam Agrochemical Company Limited, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM LTD MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, Rotam Agrochemical Company Limited or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM AGROCHEMICAL COMPANY LIMITED AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM AGROCHEMICAL COMPANY LIMITED OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Rotam Agrochemical Company Limited and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam Agrochemical Company Limited.

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Registered: [TBA]

## RESTRICTED USE PESTICIDE

## **Due to high Acute Toxicity to Humans**

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient	By Weight	
Methomyl		
(S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)	90%	
Other Ingredients	10%	
TOTAL	100%	

EPA Reg. No. 83100 - 28

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Registered: (TBA)

EPA Est. No.: 69821-CHN-005

Net Contents:
Packets/Container
TBA

## KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Refer to inside label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions For Use.

## **FIRST AID**

## (N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. **IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

## ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

**POISONING SYMPTOMS** — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

## NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.



## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Fatal if swallowed. May be fatal if inhaled or gets in eyes. Do not breathe dust. Do not get in eyes. Avoid contact with clothing.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- Long sleeve shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- · Socks and chemical resistant footwear.
- Protective eyewear.
- Chemical resistant apron.
- Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## USER SAFETY RECOMMENDATIONS USERS SHOULD:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

## **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply

directly to water of pareas where surface water is present to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

## PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

## STORAGE AND DISPOSAL

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**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

**For Paper and Plastic Bags:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.

Manufactured by:
Rotam Agrochemical Company Ltd.
7/F Cheung Tat Centre
18 Cheung Lee Street
Chai Wan, Hong Kong
1-866-927-6826

Net Contents:
Packets/Container
TBA



## reviews for methomyl 83100-27, 83100-28

Thomas Harris o Frank Sobotka

04/06/2011 06:11 PM

Dr. Sobotka,

Attached are the product chemistry and acute toxicology reviews for Rotam methomyl products 83100-27 and 83100-28 which were registered yesterday (4/5/2011). Please use these copies to replace any previous versions I had sent you (some minor administrative changes made on earlier version of a couple of reviews). Unless requested otherwise, I will not mail you paper copies of this material. This email (and yesterday's email with the stamped labels) will constitute the officially delivery of this material.

Again, thank you for your prompt attention to any issues we brought up and to label revisions as they were requested.

83100-ET

PDF

83100-ET.product chemistry.20110318.no CBI.pdf



83100-ET.product chemistry.addendum.20110318.no CBI.pdf



83100-00027.acute tox review.20110228.pdf

83100-EI

POS

083100-00028.prod chem.20110331.no CBI.image.pdf



083100-00028.prod chem addendum.20110331.no CBl.image.pdf



83100-00028.acute tox review.20110310.pdf

Tom Harris EPA/OCSPP/OPP/RD/IRB voice: (703) 308-9423

fax: (703) 308-0029 harris.thomas@epa.gov

visit http://www.epa.gov/pesticides



DP BARCODE: D388049

FILE SYMBOL No.: 83100-EI

**Action Code: R310** 

**DECISION No.: 439798** 

PC Code: 090301

FOOD Use: Yes

DATE OUT: 31 March 2011

SUBJECT: End Use Product Chemistry Review

Product Name: Rotam Methomyl 90SP Insecticide

FROM: Bruce F. Kitchens, Chemist

**Product Chemistry Team** 

Bruce 7. Kithens
31 Mar 2011
(7505P) 818~
415711 Technical Review Branch / Registration Division (7505P)

TO: PM #07, John Hebert/Thomas Harris

Insecticide-Rodenticide Branch / Registration Division (7505P)

Company Name: Rotam Agrochemical Co., Ltd

Formulation Type: Solid

#### INTRODUCTION: A.

The applicant submitted an application for registration of a new food use end use product. In support of the application, the applicant submitted product chemistry data corresponding to Guideline 830 series, group A contained in MRID# 484168-01. This data is an addendum to a previously reviewed MRID# 482261-01. Revised basic and alternate formula CSFs dated 07 Mar 2011 and 16 Mar 2011, respectively were also submitted. The data contained in this submission have been reviewed in DP Barcode D383461 dated 31 Mar 2011.



DP BARCODE: D383461

FILE SYMBOL No.: 83100-EI

**DECISION No.: 439798** 

PC Code: 090301 **FOOD Use: Yes** 

Action Code: R310

DATE OUT: 31 March 2011

End Use Product Chemistry Review SUBJECT:

Product Name: Rotam Methomyl 90SP Insecticide

FROM: Bruce F. Kitchens, Chemist

Product Chemistry Team

Bruse 7. Kuthens 31 Mar 2011 (7505P) 8 Bru 4/571/ Technical Review Branch / Registration Division (7505P)

TO: PM #07, John Hebert/Thomas Harris

Insecticide-Rodenticide Branch / Registration Division (7505P)

Company Name: Rotam Agrochemical Co., Ltd

Formulation Type: Solid

#### INTRODUCTION: A.

The applicant submitted an application for registration of a new food use end use product. In support of the application, the applicant submitted product chemistry data corresponding to Guideline 830 series, group A & group B contained in MRIDs 482261-01 through 482261-03. A CSF for a basic formulation (dated 07 Mar 2011) was submitted along with the product label. During the course of this review, the applicant submitted an alternate formula CSF dated 16 Mar 2011. In addition, the applicant states that the proposed product is substantially similar to EPA Reg. No. 352-342 Lannate SP. TRB has been asked to determine the acceptability of the product chemistry data and the proposed CSF. The primary review of this submission was conducted by the Oak Ridge National Laboratory (ORNL).

#### B. **SUMMARY OF FINDINGS:**

- 1. Name of Active Ingredient: Methomyl (90.0% a.i.)
- 2. Has the registrant claimed substantial similarity to registered product?

[X] Yes; [ ] No; [ ] NA; if yes give the registration number of the cited product. EPA Reg. No.: 352-342

3. All the source materials for the active ingredients are derived from registered sources: [] Yes; [X] No

The TGAI (File Symbol ) is being registered concurrently.

\*Product ingredient source information may be entitled to confidential treatment\*

P	P BARCODE No.: D383461 FILE SYMBOL No.: 83100-EI DECISION No.: 439798 C Code: 090301 Action Code: R 310 OOD Use: Yes
4.	All inert ingredients have been screened by IIAB and found to be approved for the proposed labeled uses [X] Yes; [ ] No.
5.	Confidential Statements of Formula:
	[X] Basic - Dated: November 9, 2009 resubmitted - Dated: 07 Mar 2011 [X] Alternate # 1 - Dated: 16 Mar 2011
	Alternate CSF complies with 40 CFR §152.43 [X] Yes; [ ] No; [ ] NA
6.	Product label  a. Ingredient statement: Nominal concentration of AI listed on CSFs concur with product label (PR Notice 91-2)  [X] Yes [] No, if not, explain below:  Is the sub statement in compliance with PR Notice 97-6 (Inert ingredient vs. other ingredient [] Yes; [X] No; if not, explain below.
	Label ingredient statement still lists "Inert Ingredients" instead of "Other Ingredients"
	Metallic equivalent: [ ] Yes [X] NA; Soluble arsenic: [ ] Yes [X] NA Isomeric ratios: [ ] Yes [X] NA Acid equivalent: [ ] Yes [X] NA
	b. Health related sub statements: Product contains?
	Petroleum distillate at > 10%: [ ] Yes [ ] No [X] NA Methanol at > 4%: [ ] Yes [ ] No [X] NA
	<ul> <li>c. Physical chemical hazard statement: Product label requires a statement per 40 CFR §156.78 for flammability, explosive potential or electric insulator breakdown?</li> <li>[ ] Yes [X] No</li> </ul>
	Is the sub statement in compliance with PR Notice 98-6? (Total Release Fogger) [ ] Yes [ ] No; [X]; NA if not, explain below:
	d. Label requires an additional Storage and Disposal statement: [ ] Yes [X] No; if yes explain below:

DP BARCODE No.: D383461 FILE SYMBOL No.: 83100-EI DECISION No.: 439798

PC Code: 090301 Action Code: R 310

FOOD Use: Yes

## 7. Group A: Product Chemistry Data

TRB's determination of the acceptability of the data for the proposed product is listed in the tables below.

Guideline	Study Title		Data submitted		TRB's Assessment	
No.			Yes	No	of Data	MRID Nos.
830.1550	Product Identity & Composition		X		A	482261-01 484168-01
830.1600	Description to produce t	of materials used the product	x		A	482261-01 484168-01
830.1650	Description of formulation process		x		A	482261-01 484168-01
830.1670	Discussion on the formation of impurities		X		A	482261-01 484168-01
830.1700	Preliminary analysis			X	NA	
	Certified	Standard certified limits	X		A	
	limits (158.350)	Proposed Limits				
830.1750		Justification for wider limits				see csf 3/7/11
830.1800	Enforcement method	nt analytical	X		A	482261-02

A = Acceptance, N = Not Acceptable, G = Data Gap,

W = Waiver Request, I = In Progress, NA = Not Applicable

DP BARCODE No.: D383461 FILE SYMBOL No.: 83100-EI DECISION No.: 439798

PC Code: 090301 Action Code: R 310

FOOD Use: Yes

## 8. Group B:

Guideline No.	Study Title	Value or Qualitative Description	TRB's Assessment of Data	MRID Nos.
830.6303	Physical State	Powder	A	482261-03
830.6315	Flammability	Contains no flammable ingredients	NA	482261-03
830.6316	Explodability	Not potentially explosive	NA	482261-03
830.7000	pН	5.27 (1% solution in deionized water)	A	482261-03
830.7300	Density (units)	0.414 g/mL (pour) 0.500 g/mL (tap)	A	482261-03

A = Acceptance, N = Not Acceptable, G = Data Gap, W = Waiver request, NA = Not applicable, I = In progress

DP BARCODE No.: D383461 FILE SYMBOL No.: 83100-EI DECISION No.: 439798

PC Code: 090301 Action Code: R 310

FOOD Use: Yes

## C. CONCLUSIONS:

The TRB has reviewed the CSFs and product chemistry data for the proposed end use product and has concluded:

- 1. The proposed basic CSF dated 07 Mar 2011 is acceptable. Acceptance of this product for registration is contingent upon the registration of the source of the active ingredient.
- 2. The proposed alternate CSF dated 16 Mar 2011 is acceptable.
- 3. The data submitted corresponding to Group A were reviewed and determined to be acceptable.
- 4. The data submitted corresponding to Group B were reviewed and determined to acceptable. The data requirements for storage stability and corrosion characteristics are a data gap. The applicant states that studies are in progress and will be submitted to the Agency for evaluation upon completion.
- 5. The proposed product meets the criteria specified in 40 CFR 152.43 with respect to alternate formulations.
- 6. The proposed product is substantially similar in composition to EPA Reg. No. 352-342 Lannate SP.
- 7. The proposed label was screened as it pertains to the product chemistry requirements. The final review of the proposed label and uses are the purview of the RM team. Require applicant to revise the label ingredient statement to comply with PR-Notice 97-6. This guidance requires the use of "Other Ingredients" instead of "Inert Ingredients".

## DATA EVALUATION RECORD

## METHOMYL (Rotam Methomyl 90SP Insecticide)

STUDY TYPES: Product Identity and Composition (OPPTS 830.1550)

Description of Materials Used to Produce the Product (OPPTS 830.1600)

**Description of Production Process (830.1620)** 

Discussion of Formation of Impurities (OPPTS 830.1670)

Preliminary Analysis (OPPTS 830.1700) Certified Limits (OPPTS 830.1750)

**Enforcement Analytical Method (OPPTS 830.1800)** 

Physical and Chemical Characteristics (OPPTS 830.6302-830.7950)

## MRIDs 482261-01 through 482261-03

Prepared for Registration Division Office of Pesticide Programs U.S. Environmental Protection Agency One Potomac Yard 2777 South Crystal Drive Arlington, VA 22202

Prepared by Toxicology and Hazard Assessment Group **Environmental Sciences Division** Oak Ridge National Laboratory Oak Ridge, TN 37831 Task Order No. 1-89

Prim	ar	y ]	Revie	W	e	r:	
Date	D	T		-	K	C	

Eric B. Lewis, M.S.

Signature: Date:

Secondary Reviewers:

Sylvia Milanez, Ph.D., D.A.B.T.

Signature: Date:

Cheryl B. Bast, Ph.D., D.A.B.T., Group Leader

Signature:

Date:

Quality Assurance:

Kimberly G. Slusher, M.S.

Signature: Date:

## Disclaimer

This review may have been altered subsequent to the contractor's signatures above.

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## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

March 10, 2011

## **MEMORANDUM**

Subject: Name of Pesticide Product: ROTAM METHOMYL 90SP INSECTICIDE

> EPA Reg. No. /File Symbol: 83100-EI DP Barcode: DP 383462 Decision No.: 439798

Action Code: R310

090301 (Methomyl: 90%) PC Codes:

Byon B-Co-2011.
March-10-2011.
March-10-2011.
Mashington From: Byron T. Backus, Ph.D., Toxicologist

Technical Review Branch Registration Division (7505P)

To: Tom Harris RM 07

> Insecticide-Rodenticide Branch Registration Division (7505P)

ROTAM AGROCHEMICAL COMPANY LIMITED Registrant:

FORMULATION FROM LABEL:

Active Ingredient(s): by wt. 090301 Methomyl 90% Other Ingredient(s): 10% TOTAL 100%

## **ACTION REQUESTED:** The Risk Manager requests:

"83100-EI methomyl new water soluble packet product (90%). Please review acute product toxicology (MRID 48226104) for this new generic methomyl product. Also, please comment on claim of similarity to 352-342."

## BACKGROUND:

The material received for review includes a set of 6 acute toxicity studies, bound within one volume which has been assigned MRID 48226104. It also includes a CSF (dated 11/9/2009) for 83100-EI and labels for both 83100-EI and EPA Reg. No. 352-342.

## COMMENTS AND RECOMMENDATIONS:

- All six of the acute studies have been classified as acceptable. These studies satisfy the acute toxicity data requirements for the registration of 83100-EI (Rotam Methomyl 90SP Insecticide).
- 2. The following is the acute toxicity profile for EPA File Symbol 83100-EI (Rotam Methomyl Technical), based on the results of the acute toxicity studies:

Acute oral toxicity	I	Acceptable	MRID 48226104*
Acute dermal toxicity	IV	Acceptable	MRID 48226104*
Acute inhalation toxicity	II	Acceptable	MRID 48226104*
Primary eye irritation	$III_p$	Acceptable	MRID 48226104*
Primary dermal irritation	IV	Acceptable	MRID 48226104*
Dermal sensitization	Negative	Acceptable	MRID 48226104*

<sup>\*</sup>All studies are bound in a single volume under this MRID number.

- 3. The acute toxicity profile given above is consistent with the precautionary statements on the label for EPA Reg. No. 352-342, indicating the two products are toxicologically similar.
- 4. Based on the acute toxicity profile above, and taking into consideration the proposed uses specified on the label and information in the CSF, the following would be the precautionary and first aid labeling for EPA File Symbol 83100-EI [Rotam Methomyl 90SP Insecticide] as obtained from the Label Review System:

PRODUCT ID #:

083100-00028

PRODUCT NAME:

**ROTAM METHOMYL 90SP INSECTICIDE** 

**PRECAUTIONARY STATEMENTS** 

SIGNAL WORD: DANGER

POISON &

SPANISH SIGNAL WORD: PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

<sup>&</sup>lt;sup>a</sup> Results from instillation of 0.05 mL, presumably because of toxicity considerations. Eye protection is mandatory for this product. The statement: "MAY BE FATAL IF GETS IN EYES" which appears in the precautionary statement for EPA Reg. No. 352-342 would also be appropriate for 83100-EI.

## Hazards to Humans and Domestic Animals:

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Fatal if swallowed. May be fatal if inhaled or gets in eyes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Do not breathe dust. Remove and wash contaminated clothing before reuse. Avoid contact with clothing. Do not get in eyes. Wear protective eyewear. Wear: Long-sleeved shirt and long pants, Socks, chemical-resistant shoes, and chemical-resistant gloves (such as barrier laminate or butyl rubber).

For handling activities, use a non-powered air purifying respirator equipped with an N-, R-, or P-series filter.

### First Aid:

#### If swallowed:

- -Call a poison control center or doctor immediately for treatment advice.
- -Have person sip a glass of water if able to swallow.
- -Do not induce vomiting unless told to by a poison control center or doctor.
- -Do not give anything to an unconscious person.

## If inhaled:

- -Move the person to fresh air.
- -If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- -Call a poison control center or doctor for further treatment advice.

## If in eyes:

- -Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- -Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- -Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: Note to CRM/PM/Registrant: The proposed label should contain a "Note to Physician" which addresses the presence of a cholinesterase inhibitor. The following statements are suggested types of information that may be included, if applicable: - technical information on symptomatology; - use of supportive treatments to maintain life functions; - medicine that will counteract the specific physiological effects of the pesticide; - company telephone number to specific medical personnel who can provide specialized medical advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

5. The CSF (dated 11/9/2009) for 83100-EI should also be reviewed and accepted by the TRB Chemistry Team.

Reviewer: Byron T. Backus, Ph.D. Date: February 28, 2011

Risk Manager (EPA): 07

STUDY TYPE: Acute Oral Toxicity - Rat; OPPTS 870.1100; OECD 401

**TEST MATERIAL:** Methomyl 90% SP (soluble powder), a white powder containing a minimum of 90% active ingredient.

SYNONYMS: Rotam Methomyl 90SP Insecticide

**CITATION**: Kuhn, J. (1996). Methomyl 90% SP: Final Report: Acute Oral Toxicity Study in Rats. Laboratory Study No. 2918-96. Unpublished study prepared by Stillmeadow, Inc. September 5, 1996. Pp. 5-33 MRID 48226104.

**SPONSOR:** Rotam Agrochemical Company, Ltd

ChaiWan, Hong Kong

EXECUTIVE SUMMARY: In an acute oral toxicity study (MRID 48226104), groups of five male or five female HSD Sprague-Dawley albino rats (age [estimated from body weights]: 10-13 weeks; weight: males: 272-323 g; females: 178-218 g; source: Harlan Sprague Dawley, Inc., Indianapolis, IN) were orally gavaged with a 5% w/v concentration of the test material in deionized water. The test material doses ranged from 5.0 to 25.0 mg/kg. The volume administered ranged from 0.10 mL/kg at 5.0 mg/kg to 0.50 mL/kg at the 25.0 mg/kg level.

All deaths occurred within two hours of dosing. There were no deaths at 5.0 mg/kg (only females tested); 1/5 females dosed at 6.5 mg/kg died; 0/5 males at 8.0 mg/kg died; 5/5 females at 10.0 mg/kg died; 4/5 males at 17.0 mg/kg died; 5/5 females at 24.0 mg/kg died; and 5/5 males at 25.0 mg/kg died. Signs of toxicity were seen in all animals in all dose groups (except those dying within the first hour after dosing) and included piloerection, activity decrease, salivation, body tremors, sensitivity to sound, gasping, rapid breathing, polyuria, ptosis and muzzle stained red. Survivors recovered by Day 8.

Gross necropsy in rats that died showed matted muzzle (chin hair matted), clear or white liquid in the stomach, orange gel in small intestine, and green paste in large intestine. The surviving rats had no observable abnormalities.

Male rat  $LD_{50} = 14.2$  (11.0-18.4) mg/kg Female rat  $LD_{50} = 7.14$  (6.22-8.19) mg/kg

Based on the acute oral  $LD_{50}$  of 7.14 mg/kg, Methomyl 90% SP is in EPA Toxicity Category I for oral toxicity.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and [No] Data Confidentiality statements were provided.

## RESULTS and DISCUSSION:

- A. Mortality: There were no deaths at 5.0 mg/kg (only females tested); 1/5 females dosed at 6.5 mg/kg died; 0/5 males at 8.0 mg/kg died; 5/5 females at 10.0 mg/kg died; 4/5 males at 17.0 mg/kg died; 5/5 females at 24.0 mg/kg died; and 5/5 males at 25.0 mg/kg died.
- B. <u>Clinical observations</u>: All deaths occurred within 2 hours of dosing. Signs of toxicity were seen in all animals in all dose groups (except those dying within one hour of dosing) and included piloerection, activity decrease, salivation, body tremors, sensitivity to sound, gasping, rapid breathing, polyuria, ptosis and muzzle stained red. Survivors recovered by Day 8.
- C. <u>Gross necropsy</u>: Necropsy findings in rats that died included matted muzzle (chin hair matted), clear or white liquid in the stomach, orange gel in small intestine, and green paste in large intestine. The surviving rats had no observable abnormalities.
- D. <u>Reviewer's conclusions</u>: We can accept the findings of this study as indicating the LD<sub>50</sub> value = 7.14 mg/kg in female rats and 14.2 mg/kg in male rats. Methomyl 90 SP is in EPA Toxicity Category I for oral toxicity.
- E. <u>Additional comment:</u> Since this study is from 1996, OECD 401: Acute Oral LD<sub>50</sub> was the protocol used. Although we accepted the study in this case, our guidance is that OECD 401 is now an unacceptable protocol. Please inform the registrant that the preferred protocol is OECD 425: Acute Oral Toxicity-Up-and-Down Procedure.

Reviewer: Byron T. Backus Date: February 28, 2011

Risk Manager (EPA): 07

STUDY TYPE: Acute Dermal Toxicity - Rat; OPPTS 870.1200; OECD 402

**TEST MATERIAL:** Methomyl 90% SP (soluble powder), a fine white powder containing 91.12% active ingredient.

**SYNONYMS**: Rotam Methomyl 90SP Insecticide

<u>CITATION</u>: Kuhn, J. (1996). Methomyl 90% SP: Final Report: Acute Dermal Toxicity Study in Rabbits. Laboratory Study No. 2919-96. Unpublished study prepared by Stillmeadow, Inc. August 22, 1996. Pp. 34-49 MRID 48226104.

**SPONSOR:** Rotam Agrochemical Company, Ltd

ChaiWan, Hong Kong

**EXECUTIVE SUMMARY:** In an acute dermal toxicity study (MRID 48226104), five male and five female New Zealand young adult white rabbits (males: 2.050-2.700 kg; Females: 2.200-2.750 kg; source: Ray Nichols Rabbitry, Lumberton, TX) were dermally exposed to 5050 mg/kg Methomyl 90% SP, a white powder. Each dose was moistened with deionized water (0.57 mL/g of test material) and applied evenly to a clipped area ( $\geq 10\%$  of the total body surface area) on the dorsal surface of the trunk. The site of application was covered with an 8 x 4 inch surgical gauze patch which was secured with non-irritating adhesive tape. The trunk of each animal was wrapped with an orthopedic stockinette. After 24 hours the wrappings were removed and the area was gently cleaned. The rabbits were observed for 14 days.

There were no deaths. The only sign of systemic toxicity was rapid breathing in two males and two females at one hour. There was very slight erythema at the application site in all rabbits on Day 1, and in two animals on Day 4. All rabbits gained weight between Day 0 and 7; one female lost a slight amount of weight between Day 7 and 14 while the other animals gained or maintained weight. At gross necropsy there were no observable abnormalities.

Dermal LD<sub>50</sub> Males > 5050 mg/kg bw Dermal LD<sub>50</sub> Females > 5050 mg/kg bw Dermal LD<sub>50</sub> Combined > 5050 mg/kg bw

Based on the acute dermal  $LD_{50} > 5050$  mg/kg, Methomyl 90% SP, a fine white powder containing 91.12% active, is in EPA Toxicity Category IV for dermal toxicity.

This study is classified as acceptable. It does satisfy the guideline requirements for an acute dermal study (OPPTS 870.1200; OECD 402) in the rabbit.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and [No] Data Confidentiality statements were provided.

## **RESULTS and DISCUSSION:**

Dose		Mortality/Number Tested	
(mg/kg bw)	Males	Females	Combined
5050	0/5	0/5	0/10

- A. Mortality: There were no deaths.
- **B.** Clinical observations: The only sign of systemic toxicity was rapid breathing in two males and two females at one hour. There was very slight erythema at the application site in all rabbits on Day 1, and in two animals on Day 4. All rabbits gained weight between Day 0 and 7; one female lost a slight amount of weight between Day 7 and 14 while the other animals gained or maintained weight.
- C. Gross necropsy: At gross necropsy there were no observable abnormalities.
- **D.** Reviewer's conclusions: The acute dermal LD<sub>50</sub> for rabbit males, females (and the combined sexes) is greater than 5050 mg/kg bw. This places Methomyl 90% SP, a fine white powder containing 91.12% active, in EPA Toxicity Category IV for dermal toxicity.

Reviewer: Byron T. Backus, Ph.D. Date: March 9, 2011

Risk Manager (EPA): 07

STUDY TYPE: Acute Inhalation Toxicity - Rat; OPPTS 870.1300; OECD 403

**TEST MATERIAL:** Methomyl 90% SP (soluble powder), a fine white powder containing 91.12% active ingredient.

SYNONYMS: Rotam Methomyl 90SP Insecticide

<u>CITATION</u>: Bennick, J. (1996). Methomyl 90% SP: Final Report: Acute Inhalation Toxicity Study in Rats. Laboratory Study No. 2920-96. Unpublished study prepared by Stillmeadow, Inc. August 20, 1996. Pp. 107-133. MRID 48226104.

**SPONSOR:** Rotam Agrochemical Company, Ltd ChaiWan, Hong Kong

EXECUTIVE SUMMARY: In an acute inhalation toxicity study (MRID 48226104) groups of five male and five female HSD:Sprague-Dawley albino young adult rats (M: 294-319 g; F: 192-226 g: source: Harlan Sprague Dawley, Inc., Indianapolis, IN) were exposed (nose-only) for 4 hours to atmospheric concentrations (analytically determined) of 0.114 and 0.299 mg/L Methomyl 90% SP; the Mean Mass Aerodynamic Diameter (MMAD) values were 1.175 and 3.224 μm and the mean Geometric Standard Deviation (GSD) values were 4.367 and 4.373 respectively. There were only single measurements for atmospheric concentration, MMAD and GSD at 0.299 mg/L, as the study was ended at 2.5 hours into exposure when all animals were dead. The rats exposed to 0.114 mg/L were observed for 14 days following exposure.

All of the rats exposed to 0.299 mg/L were dead at 2 ½ hours into the scheduled 4-hour exposure. Signs of toxicity in one female at 1.0 hours into exposure (all the other 9 rats were dead at this time) included piloerection, extreme body tremors and moderate polyuria. There was no mortality among the rats exposed to 0.114 mg/L. Signs of toxicity during and immediately after exposure in the 0.114 mg/L group included polyuria, activity decrease, piloerection, red ocular discharge, body tremors, unsteady gait, withdrawn testes, nasal discharge, lacrimation, ptosis, fur coated with feces and/or urine, and crust around eyes. Some of these signs were still present on Day 1, but the only one still present on Day 2 was piloerection in 2 males. All rats in the lower exposure group were normal by Day 3 and showed no indications of toxicity for the remainder of the observation period; they all gained weight between Day 0 and 7 and again between Day 7 and 14.

Necropsy findings in the rats exposed to 0.299 mg/L included hair around mouth and nose and/or eyes matted and red or matted and foamy, ventral hair matted, and lungs swollen twice normal size and red. There were no observed abnormalities in the rats exposed to 0.114 mg/L.

LC<sub>50</sub> Males > 0.114 mg/L; < 0.299 mg/L LC<sub>50</sub> Females > 0.114 mg/L; < 0.299 mg/L LC<sub>50</sub> Combined > 0.114 mg/L; < 0.299 mg/L Based on the four-hour inhalation exposure 0.114 mg/L < LC<sub>50</sub> < 0.299 mg/L, Methomyl 90% SP, a fine white powder containing 91.12% active ingredient, is in EPA Toxicity Category II by this exposure route.

This study is classified as acceptable. It does satisfy the guideline requirements for an acute inhalation study (OPPTS 870.1300; OECD 403) in the rat.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and [No] Data Confidentiality statements were provided.

## **RESULTS and DISCUSSION:**

Nominal Conc.	Analytical Conc.	MMAD	Mean	Mort	ality/Number	r Tested	
(mg/L)	(mg/L)	μm	GSD	Males	Females	Combined	
0.272	0.114	1.175	4.367	0/5	0/5	0/10	
0.806	0.299	3.224	4.373	5/5	5/5	10/10	

Test atmosphere / Chamber description: From p. 114 of MRID 48226104: "The aerosol was generated by a Gem T Trost Air Mill which aspirated the test substance from a motorized revolving disc delivery system coupled to the mill. The concentrated aerosol was then diluted with filtered air and drawn into the exposure chamber. Air flow into the chamber was maintained through the use of a calibrated orifice plate at a rate of 18.3-20.4 air changes per hour..."

Mean Formulation Conc. (mg/L):	0.114	0.299
Chamber Volume (L):	500	500
Mean Airflow (L/min):	170	153
Range of Temperature (° F):	70-73	70
Range of Relative Humidity (%):	73-78	77
Time to t <sub>99</sub> equilibrium (minutes):	14	15

Test atmosphere concentration: From p. 115 of MRID 48226104: "The concentration of test substance in the exposure atmosphere (taken from the breathing zone of the animals) was determined analytically once per hour... The analytical determination was made using a BAUSCH & LOMB SPECTRONIC 2000 Spectrophotometer... The nominal concentration was determined by dividing the loss in weight of the test substance after each exposure by the total volume of air which passed through the chamber."

Particle size determination: Particle size distribution was measured twice during exposure using an 8-stage cascade impactor (only once at 0.299 mg/L, as all rats were dead at 2 ½ hours into exposure). The Mass Median Aerodynamic Diameter (MMAD) and particle size distributions were calculated from these data.

- A. Mortality: All of the rats exposed to 0.299 mg/L were dead at 2 ½ hours into the scheduled 4-hour exposure. There was no mortality among the rats exposed to 0.114 mg/L.
- B. Clinical observations: Signs of toxicity in one 0.299 mg/L female at 1.0 hours into exposure (the other 9 rats were dead at this time) included piloerection, extreme body tremors and moderate polyuria. Signs of toxicity during and immediately after exposure in the 0.114 mg/L group included polyuria, activity decrease, piloerection, red ocular discharge, body tremors, unsteady gait, withdrawn testes, nasal discharge, lacrimation, ptosis, fur coated with feces and/or urine, and crust around eyes. Some of these signs were still present on Day 1, but the only one still present on Day 2 was piloerection in 2 males. All rats in the lower exposure group were normal by Day 3 and showed no indications of toxicity for the remainder of the observation period; they all gained weight between Day 0 and 7 and again between Day 7 and 14.
- C. <u>Gross necropsy</u>: Necropsy findings in the rats exposed to 0.299 mg/L included hair around mouth and nose and/or eyes matted and red or matted and foamy, ventral hair matted, and lungs swollen twice normal size and red. There were no observed abnormalities in the rats exposed to 0.114 mg/L.
- **D.** Reviewer's conclusions: Based on the four-hour inhalation exposure  $0.114 \text{ mg/L} < LC_{50} < 0.299 \text{ mg/L}$ , Methomyl 90% SP, a fine white powder containing 91.12% active ingredient, is in EPA Toxicity Category II by this exposure route.

Reviewer: Byron T. Backus, Ph.D. Date: March 9, 2011

Risk Manager (EPA): 07

STUDY TYPE: Primary Eye Irritation - Rabbit; OPPTS 870.2400; OECD 405

**TEST MATERIAL:** Methomyl 90% SP (soluble powder), a fine white powder containing 91.12% active ingredient.

**SYNONYMS**: Rotam Methomyl 90SP Insecticide

<u>CITATION</u>: Kuhn, J. (1996). Methomyl 90% SP: Final Report: Primary Eye Irritation Study in Rabbits. Laboratory Study No. 2921-96. Unpublished study prepared by Stillmeadow, Inc. August 7, 1996. Pp. 50-69 MRID 48226104.

SPONSOR: Rotam Agrochemical Company, Ltd

ChaiWan, Hong Kong

EXECUTIVE SUMMARY: In a primary eye irritation study (MRID 48217706), 0.05 mL (22.4 mg) of the test material was instilled into the conjunctival sac of the right eye of each of 6 (3M & 3F) albino New Zealand white rabbits (body weights: males: 2.025-3.200 kg; females: 2.850-3.050 kg; source: Ray Nichols Rabbitry, Lumberton, TX). It is presumed by this reviewer that the reason for using a dose of 0.05 mL instead of 0.1 mL is related to the toxicity of the test material; in a study with Methomyl Technical (MRID 48217706), containing 98.45% active, all 6 rabbits which had 0.1 mL of the test material instilled in one eye were dead within one hour. The eyes were evaluated and scored for irritation at 1, 24, 48 and 72 hours.

All 6 eyes were positive for iritis and conjunctival redness at 1 hour, and 5/6 were positive for corneal opacity. 4/6 were positive for corneal opacity at 24 hours. All eyes were completely clear (all scores zero) at 72 hours. The Maximum Mean Irritation Score was 25.7, observed at 1 hour after treatment.

In this study, 4/6 eyes were positive for corneal opacity at 24 hours. Methomyl 90% SP, a fine white powder containing 91.12% active ingredient, is in EPA Toxicity Category III for primary eye irritation. Because only 0.05 mL was instilled (presumably because of systemic toxicity considerations), eye protection is mandatory for workers with potential exposure to this formulation.

This study is classified as acceptable. It does satisfy the guideline requirements for a primary eye irritation study (OPPTS 870.2400; OECD 405) in the rabbit.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and Data Confidentiality statements were provided.

## **RESULTS and DISCUSSION:**

		Number of eyes p	ositive/Number treated	
Observations		I	Hours	
	1	24	48	72
Corneal Opacity	5/6	4/6	0/6	0/6
Iritis	6/6	0/6	0/6	0/6
Conjunctivae				
Redness*	6/6	0/6	0/6	0/6
Chemosis*	0/6	0/6	0/6	0/6
Discharge**	0/6	0/6	0/6	0/6

<sup>\*</sup> Score of 2 or more required to be considered "positive"

- A. Observations: All 6 eyes were positive for iritis and conjunctival redness at 1 hour, and 5/6 were positive for corneal opacity. 4/6 were positive for corneal opacity at 24 hours. All eyes were completely clear (all scores zero) at 72 hours. The Maximum Mean Irritation Score was 25.7, observed at 1 hour after treatment.
- B. Results: The Maximum Mean Total Score (MMTS) for the washed eyes was 25.7 at 1 hour.
- C. <u>Reviewer's conclusions</u>: The test material can be classified in EPA Toxicity Category III for eye irritation. Because only 0.05 mL was instilled (presumably because of systemic toxicity considerations), eye protection is mandatory for workers with potential exposure to this formulation.

<sup>\*\*</sup> Discharge does not indicate a positive effect according to the grading scale

Reviewer: Byron T. Backus, Ph.D. Date: March 10, 2011

Risk Manager (EPA): 07

STUDY TYPE: Primary Dermal Irritation - Rabbit; OPPTS 870.2500; OECD 404

TEST MATERIAL: Methomyl 90% SP (soluble powder), a fine white powder containing 91.12% active ingredient.

**SYNONYMS**: Rotam Methomyl 90SP Insecticide

<u>CITATION</u>: Kuhn, J. (1996). Methomyl 90% SP: Final Report: Primary Dermal Irritation Study in Rabbits. Laboratory Study No. 2922-96. Unpublished study prepared by Stillmeadow, Inc. August 15, 1996. Pp. 70-85 MRID 48226104.

**SPONSOR:** Rotam Agrochemical Company, Ltd ChaiWan, Hong Kong

EXECUTIVE SUMMARY: In a primary dermal irritation study (MRID 48226104), six (3M & 3RF) young adult New Zealand white albino rabbits (males: 2.200-2.825 kg; females: 2.300-3.100 kg; source: Ray Nichols Rabbitry, Lumberton, TX) were each dermally exposed to 500 mg Methomyl 90% SP (91.12% active ingredient) moistened with a 0.3 mL deionized water. The application site was covered a semi-permeable dressing (a surgical gauze patch four single layers thick measuring 2.5 x 2.5 cm, covered with plastic film and secured with non-irritating adhesive tape, with the entire trunk of the animal wrapped in orthopedic stockinette) during the 4-hour exposure period. The sites were evaluated and scored for irritation at 1, 24, 48 and 72 hours and 7 days after removal of the dressing.

There is nothing in the report indicating there was any systemic toxicity. Erythema scores were 0 (1 rabbit), 1 (4 rabbits) and 2 (1 rabbit) at 1 hour; 0 (3 rabbits), 1 (2 rabbits) and 2 (1 rabbit) at 24 and 48 hours, and 0 (5 rabbits) and 1 (1 rabbit) at 72 hours. All erythema scores were zero on day 7. All edema scores were zero at all times. The Primary Dermal Irritation Index (PDII) = 0.63. The mean irritation score at 72 hours was 0.17.

In this study, Methomyl 90% SP (91.12% active ingredient) caused mild dermal irritation (PDII = 0.63) following 4-hour exposure. The mean irritation score at 72 hours was 0.17. The test material is classified in EPA Toxicity Category IV for primary dermal irritation.

This study is classified as acceptable. It does satisfy the guideline requirements for a primary dermal irritation study (OPPTS 870.2500; OECD 404) in the rabbit.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and [No] Data Confidentiality statements were provided.

## **RESULTS and DISCUSSION:**

Animal Number	Sex		urs		
		1/2-1	24	48	72
3164	Male	1/0 a	1/0	1/0	0/0
3270	Male	1/0	0/0	0/0	0/0
3272	Male	0/0	0/0	0/0	0/0
3165	Female	1/0	0/0	0/0	0/0
3275	Female	2/0	2/0	2/0	1/0
3277	Female	1/0	1/0	1/0	0/0
Severity of Irritation:	: Mean Score	1.00/0.00	0.67/0.00	0.67/0.00	0.17/0.00

a erythema/edema.

- A. Observations: There is nothing in the report indicating there was any systemic toxicity. Erythema scores were 0 (1 rabbit), 1 (4 rabbits) and 2 (1 rabbit) at 1 hour; 0 (3 rabbits), 1 (2 rabbits) and 2 (1 rabbit) at 24 and 48 hours, and 0 (5 rabbits) and 1 (1 rabbit) at 72 hours. All erythema scores were zero on day 7. All edema scores were zero at all times.
- **B.** Results: The Primary Dermal Irritation Index (PDII, average of scores at 1, 24, 48 & 72 hours) = 0.63.
- C. <u>Reviewer's conclusions</u>: In this study, Methomyl 90% SP (91.12% active ingredient) caused mild dermal irritation (PDII = 0.63) following 4-hour exposure. The mean irritation score at 72 hours was 0.17. The test material is classified in EPA Toxicity Category IV for primary dermal irritation.

Reviewer: Byron T. Backus, Ph.D. Date: March 10, 2011

Risk Manager (EPA): 07

STUDY TYPE: Dermal Sensitization - Guinea Pig; OPPTS 870.2600; OECD 406

TEST MATERIAL: Methomyl 90% SP (soluble powder), a fine white powder containing 91.12% active ingredient.

**SYNONYMS**: Rotam Methomyl 90SP Insecticide

<u>CITATION</u>: Kuhn, J. (1996). Methomyl 90% SP: Final Report: Dermal Sensitization Study in Guinea Pigs. Laboratory Study No. 2923-96. Unpublished study prepared by Stillmeadow, Inc. August 30, 1996. Pp. 86-106 MRID 48226104.

SPONSOR: Rotam Agrochemical Company, Ltd

ChaiWan, Hong Kong

EXECUTIVE SUMMARY: In a dermal sensitization study (MRID 48226104) with Methomyl 90% SP (91.12% active ingredient) 20 (10M & 10F) young adult (males: 433-498 g; females: 383-453 g; source: SASCO Inc., Madison WI) Hartley albino guinea pigs were tested according to the Buehler protocol. Ten (5M & 5F) guinea pigs were assigned to Group I, while the remaining 10 (5M & 5F) were assigned to Group II. Group II animals received a 6-hour once-aweek occluded dermal exposure on the left front quadrant to 400 mg of Methomyl 90% SP moistened with 0.2 mL deionized water over a period of 3 weeks. The same test site was used for all 3 induction exposures. Group I animals were not exposed during this period. After two weeks (on Day 29), all animals were challenged with 400 mg Methomyl 90% SP moistened with 0.2 mL water at a new test site on the right rear quadrant. The sites were scored at 24 and 48 hours following the first induction exposure, at 24 hours following the second and third induction treatment, and at 24 and 48 hours following challenge.

Two of ten guinea pigs in Group I (naïve control group) and one of ten in Group II scored 0.5 at 24 hours following challenge, and one Group I and one Group II animal scored 0.5 at 48 hours following challenge. All other challenge scores were zero.

The report includes the results of a positive control assay (Study Number 2741-96; completed May 3, 1996) with 1-Chloro-2,4-Dinitrobenzene (DNCB). For induction, 0.4 mL of a 1% w/w solution in 80% ethanol was used; for challenge, 0.4 mL of a 0.45% w/v solution in acetone. The results (10/10 previously induced, 0/10 naive controls showing a positive response) were appropriate. This positive control study was completed on May 3, 1996; challenge treatment in the Methomyl 90% SP study was on July 17, 1996.

Based on the results of this study, Methomyl 90% SP (91.12% active ingredient) is <u>not</u> a dermal sensitizer.

This study is classified as Acceptable. It does satisfy the guideline requirements for a dermal sensitization study (OPPTS 870.2600; OECD 406) in the guinea pig.

**COMPLIANCE:** Signed and dated GLP, Quality Assurance and [No] Data Confidentiality statements were provided.

## PROCEDURE:

- A. <u>Induction</u>: Group II guinea pigs (10M & 10F) received a 6-hour once-a-week occluded dermal exposure on the left front quadrant to 400 mg of Methomyl 90% SP moistened with 0.2 mL deionized water over a period of 3 weeks.
- **B.** Challenge treatment: After two weeks, all animals were challenged with 400 mg Methomyl 90% SP moistened with 0.2 mL water at a new test site on the right rear quadrant. The sites were scored at 24 and 48 hours following challenge.
- C. <u>Negative controls</u>: Group I guinea pigs (5M & 5F) were untreated during the induction period. They were challenged with 400 mg Methomyl 90% SP moistened with 0.2 mL water at the same time Group II guinea pigs were challenged. The sites were scored at 24 and 48 hours following challenge.

## **RESULTS and DISCUSSION:**

- A. Reactions and durations: Two of ten guinea pigs in Group I (naïve control group) and one of ten in Group II scored 0.5 at 24 hours following challenge, and one Group I and one Group II animal scored 0.5 at 48 hours following challenge. All other challenge scores were zero.
- **B.** Positive control: The report includes the results of a positive control assay with 1-Chloro-2,4-Dinitrobenzene (DNCB). For induction, 0.4 mL of a 1% w/w solution in 80% ethanol was used; for challenge, 0.4 mL of a 045% w/v solution in acetone. The results (10/10 previously induced, 0/10 naive controls showing a positive response) were appropriate. This positive control study was completed on May 3, 1996; challenge treatment in the Methomyl 90% SP study was on July 17, 2001.
- C. <u>Reviewer's conclusions</u>: Based on the results of this study, Methomyl 90% SP (91.12% active ingredient) is not a dermal sensitizer.

1. **DP BARCODE:** 383462

PC CODE: 090301 (Methomyl)
 CURRENT DATE: March 10, 2011

4. TEST MATERIAL: Methomyl 90% SP (soluble powder), a fine white powder containing

91.12% active ingredient.

Study/Species/Lab Study # / Date MRID Results		Results	Tox. Cat.	Core Grade
Acute oral toxicity/rat Stillmeadow Inc. Sugar Land, TX 77478 Study No. 2918-96 September 5, 1996	48226104 (pp. 5-33)	Male rat $LD_{50} = 14.2$ (11.0-18.4) mg/kg; Female rat $LD_{50} = 7.14$ (6.22-8.19) mg/kg.	I	A
Acute dermal toxicity/rabbit Stillmeadow Inc. Sugar Land, TX 77478 Study No. 2919-96 August 22, 1996	48226104 (pp. 34- 49)	LD <sub>50</sub> Males > 5050 mg/kg bw LD <sub>50</sub> Females > 5050 mg/kg bw LD <sub>50</sub> Combined > 5050 mg/kg bw	IV	A
Acute inhalation toxicity/rat Stillmeadow Inc. Sugar Land, TX 77478 Study No. 2920-96 August 20, 1996	48226104 (pp. 107- 133)	LC <sub>50</sub> Males > 0.114 mg/L; < 0.299 mg/L LC <sub>50</sub> Females > 0.114 mg/L; < 0.299 mg/L	II	A
Primary eye irritation/rabbit Stillmeadow Inc. Sugar Land, TX 77478 Study No. 2921-96 August 7, 1996	48226104 (Pp. 50- 69)	0.05 mL instilled. 4/6 eyes positive for corneal opacity at 24 hours, all eyes completely clear by 72 hrs. Because only 0.05 mL was instilled, eye protection is mandatory.	III	A
Primary dermal irritation/rabbit Stillmeadow Inc. Sugar Land, TX 77478 Study No. 2922-96 August 15, 1996	48226104 (Pp. 70- 85)	PDII = 0.63 Mean irritation score at 72 hrs = 0.17.	IV	A
Dermal sensitization/guinea pig Stillmeadow Inc. Sugar Land, TX 77478 Study No. 2923-96 August 30, 1996	48226104 (Pp. 86- 106)	Negative	Neg.	A

Core Grade Key: A = Acceptable, S = Supplementary, U = Unacceptable, W = Waived



## RE: methomyl 83100: few quick corrections and we'll be done

Frank Sobotka o Thomas Harris

04/05/2011 03:26 PM

Revised labels per your comments.

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238

PH: 215 497-9501 FX: 215 497-9502

```
> Subject: methomyl 83100: few quick corrections and we'll be done
> From: harris.thomas@epamail.epa.gov
                                                               *Personal privacy information*
> Date: Tue, 5 Apr 2011 13:58:34 -0400
> Dr. Sobotka,
> Almost there. Just a couple of quick things. Just email me back the
> labels. I'll wrap them up when I get back from a meeting at 3pm.
> 83100-ET
> DFU/crop table - a) Pull down bottom line on header (it's obscuring
> the units) and b) repeat header row on all pages.
> 83100-EI
> Precautionary/PPE, pp 4, 37 (two occurrences) - Respirator not quite
> right.
> a) Delete "For exposure in enclosed areas:"
> b) Delete last sentence "Dust/mist filtering respirator ...."
> In the label filenames just put a "b" right after the date but before
> the period. This will distinguish the label from this morning's
> version.
> Tom Harris
> EPA/OCSPP/OPP/RD/IRB
> voice: (703) 308-9423
> fax: (703) 308-0029
> harris.thomas@epa.gov
> visit http://www.epa.gov/pesticides
```

> 083100-0027.20110405b, Primary Lbl.pdf 083100-0028.20110405b, Primary Lbl.pdf



## methomyl 83100: few quick corrections and we'll be done



Thomas Harris o Frank Sobotka

04/05/2011 01:58 PM

Dr. Sobotka,

Almost there. Just a couple of quick things. Just email me back the labels. I'll wrap them up when I get back from a meeting at 3pm.

## 83100-ET

DFU/crop table - a) Pull down bottom line on header (it's obscuring the units) and b) repeat header row on all pages.

### 83100-EI

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In the label filenames just put a "b" right after the date but before the period. This will distinguish the label from this morning's version.

**Tom Harris** EPA/OCSPP/OPP/RD/IRB

voice: (703) 308-9423 (703) 308-0029 fax: harris.thomas@epa.gov

visit http://www.epa.gov/pesticides



**Due to High Acute Toxicity to Humans** 

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP

1A INSECTICIDE

Rotam Methomyl 90SP Insecticide

In Water Soluble Packets 58 PM

Active Ingredient	By Weight	What Alst.
Methomyl		- Laller
(S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)	90%	Nor Heman
Other Ingredients	10%	-pe
TOTAL	100%	Se

EPA Reg. No. 83100 - 28

EPA Est. No.: 69821-CHN-005

## KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions for Use on inside booklet.

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

**Net Contents:** Packets/Container TBA



### RESTRICTED USE PESTICIDE

#### **Due to High Acute Toxicity to Humans**

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP

1A

INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient	By Weight
Methomyl	
(S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)	90%
Other Ingredients	10%
TOTAL	100%

EPA Reg. No. 83100 - 28

EPA Est. No.: 69821-CHN-005

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Net Contents:
Packets/Container
TBA

# KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Refer to inside label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions For Use.

### FIRST AID (N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

### ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention. POISONING SYMPTOMS — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

#### **NOTE TO PHYSICIAN**

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.

#### PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Fatal if swallowed. May be fatal if inhaled or gets in eyes. Do not breathe dust. Do not get in eyes. Avoid contact with clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- · Long sleeve shirt and long pants.
- · Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- · Socks and chemical resistant footwear.
- · Protective evewear.
- · Chemical resistant apron.

For exposures in enclosed areas: Respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry

#### **ENGINEERING CONTROL STATEMENTS**

Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The

handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

Pilots must not assist in the mixing and loading operations.

### USER SAFETY RECOMMENDATIONS USERS SHOULD:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- · Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.
- Remove and wash contaminated clothing before reuse.

#### **ENVRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

#### **Table of Contents**

#### Page

**Directions For Use** 

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Insect Predators

Resistance

Compatibility

Integrated Pest Management

**Spray Preparation** 

Application

Spray Drift Management Crop and Rate Tables

Storage and Disposal

Notice of Warranty

## DIRECTIONS FOR USE Restricted Use Pesticide

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all >14 mils
- · Shoes plus socks
- Protective eyewear

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

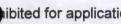
Do not formulate this product into other End-use products without written permission from Rotam.

Do not apply thru Drip Chemigation unless accompanied by Rotam Supplemental Labeling.

ROTAM METHOMYL 90SP insecticide should be used only in accordance with directions for use on this label or in separate Rotam supplemental labeling. Rotam will not be responsible for use of the product in a manner not specified by Rotam in the product's labeling and User assumes all risk for such use.

ROTAM METHOMYL 90SP is a dry powder to be dissolved in water for application by mechanical ground, overhead sprinkler, or aerial application Hand-

held equipment is ibited for application to crops.





Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural. permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Pilots must not assist in the mixing and loading operations.

Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

#### RESISTANCE MANAGEMENT

For resistance management, ROTAM METHOMYL 90SP insecticide is a group 1A insecticide. Repeated and exclusive use of ROTAM METHOMYL 90SP or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be crossresistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring. visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org.

#### INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### SCOUTING

Monitor insect populations to determine whether or not there is a need for application of ROTAM METHOMYL 90SP based on locally determined economic thresholds. More than one treatment of ROTAM METHOMYL 90SP may be required to control a population of pests.

#### **BENEFICIAL ANTHROPODS**

ROTAM METHOMYL 90SP at rates of 1/8 to 1/4 lb. per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying ROTAM METHOMYL 90SP.

Fill spray tank 1/4 to 1/2 full of water. Add ROTAM METHOMYL 90SP directly to spray tank. Carefully open the outer barrier bag containing ROTAM METHOMYL 90SP in a water soluble bag. Do not cut open the outer barrier bag. Invert the outer barrier bag allowing the inner water soluble bag to fall directly into the spray tank. Do not allow packets to become wet prior to adding to the spray tank. Do not handle, open, rip, tear, cut or perforate the inner water soluble bag. Mix thoroughly to fully dissolve the insecticide; once dissolved continued agitation is not required. Use mechanical or hydraulic means; do not use air agitation. Be sure the soluble packet is completely dissolved before adding any other ingredients. Spray mix should not be stored overnight in spray tank.

Compatibility: Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures. Do not use ROTAM METHOMYL 90SP with Bordeaux mixture (copper sulfate and hydrated lime), "Du Ter" (triphenyltin hydroxide), lime sulfur, "Rayplex" iron nor in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

Tank-mix solutions containing Boron may affect solubility of the water soluble film. When using Boron containing solutions in a tank-mix, follow these procedures:

- Add the correct amount of ROTAM METHOMYL 90SP water soluble packets first
- Be sure the soluble packets are completely dissolved
- -Introduce Boron containing solutions last

If the above procedure cannot be followed, and Boron is an essential part of the spray mix, substitute ROTAM METHOMYL 29LV formulation for the water soluble packets.

**Tank Mix Sequence:** Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

- 1. ROTAM METHOMYL 90SP and other products in water soluble bags.
- 2. Water dispersible granules
- 3. Wettable powders
- 4. Water based suspension concentrates
- 5. Water soluble concentrates

- 6. Oil based sension concentrates
- 7. Emulsifiable concentrates
- 8. Adjuvants, surfactants, oils
- 9. Soluble fertilizers
- 10. Drift retardants

Follow local practice and manufacturer's recommendation.

#### APPLICATION

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of ROTAM METHOMYL 90SP should be applied, as needed, to keep pest populations within threshold limits. On most crops, ROTAM METHOMYL 90SP should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since ROTAM METHOMYL 90SP is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for peaches and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.

For certain crops a minimum of 1 gallon per acre may be used providing the following conditions are met:

- equipment is adjusted to distribute spray uniformly over the spray swath,
- wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area,
- -local regulations do not prohibit low-volume aerial sprays,
- use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa Celery Peas (succulent) Peppermint Collards Anise Asparagus Corn Peppers Barley Cotton Potato Rye Beans Cucumber Soybean Broccoli Lettuce Spinach Sugar beet Brussels sprouts Melons Cabbage Mint Oats Summer Squash Carrot Cauliflower Peanuts Wheat

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

#### SPRAY TANK CLEANOUT

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other a sciated application equipment. Take necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

#### **CHEMIGATION**

Instructions for the Use of ROTAM METHOMYL 90SP on Alfalfa, Barley, Oats, Green and Dry Bulb Onions, Potatoes, Rye, Sugar Beets and Wheat Using Overhead Sprinkler Chemigation

Do not apply thru Drip Chemigation unless accompanied by Rotam Supplemental Labeling.

Chemigation: Overhead sprinkler chemigation is allowed for use in alfalfa, barley, oats, onions, potatoes, rye, sugar beets, and wheat. Refer to supplemental, or Special Local Need (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of ROTAM METHOMYL 90SP as high as possible in the application. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. ROTAM METHOMYL 90SP is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of ROTAM METHOMYL 90SP should take place when the insects are active and most likely to come into direct contact with the application.

#### **Types of Irrigation Systems**

ROTAM METHOMYL 90SP may be applied through overhead sprinkler irrigation systems for control of various pests. Center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems; such as end tow, side (wheel) roll and solid set, may be used if they provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 90SP through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

### General Directions for Chemigation

Preparation
A pesticide tank is recommended for the application of ROTAM METHOMYL 90SP in chemigation systems. Thoroughly clean the injection system and tan

90SP in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 90SP into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 90SP. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7)

Injection into Chemation Systems

Inject the proper amount of the ROTAM METHOMYL 90SP soution to the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing ROTAM METHOMYL 90SP into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing ROTAM METHOMYL 90SP to the irrigation water line, and apply no more than 0.2 inches of water per acre, just before the end of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 90SP must provide for uniform distribution of ROTAM METHOMYL 90SP treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

**Equipment Calibration** 

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 90SP. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

**Monitoring of Chemigation Applications** 

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 90SP is in the irrigation water.

#### Required System Safety Devices

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

- 1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut

off the pesticide in on pump when the water pump moto

- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### Posting of Areas to be Treated

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices be plugged to prevent contamination of these areas.

Do not apply when a speed favors drift beyond the area inded for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

#### Cleaning the System

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid offtarget drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

### AERIAL DRIFT REDUCTION ADVISORY INFORMATION Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See WIND, TEMPERATURE AND HUMIDITY, and TEMPERATURE INVERSIONS sections of this label.

#### Controlling Droplet Size - General Techniques

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### Controlling Droplet Size - Aircraft

- Number of No. s Use the minimum number of nozzethat provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel
  to the airstream produces larger droplets than other orientations and is the
  recommended practice. Significant deflection from horizontal will reduce
  droplet size and increase drift potential.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
- Boom Length For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application Height Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- Swath Adjustment When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downward edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

#### **BOOM HEIGHT**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. AVOID GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

#### AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

### AIR ASSISTED (AIR BLAST) TREE AND VINE. SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

Adjust deflectors and aiming devices so that spray is only directed into the canopy.

Block off upward pointed nozzles when there is no overhanging canopy.

Use only enough air volume to penetrate the canopy and provide good coverage.

Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.



### **CROP AND RATE CHARTS**



Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid Lygus Bugs Blotch Leafminer Aphids Egyptian Alfalfa Weevil Larvae Loopers Beet Armyworm Armyworm Alfalfa Caterpillar Fall Armyworm Western Yellowstriped Armyworm Yellowstriped Armyworm	1/2 – 1	7*	48 hrs
	Alfalfa Weevil Larvae	1		100
	Variegated Cutworm	1/4 - 1		
	Do not apply more than 4 Do not make more than 4 Chemigation: ROTAM ME	I pounds of ROTAM MI 10 applications per crop THOMYL 90SP may be ghest listed rate of ROT See CHEMIGATION sec	e applied by overhead sprinkler chemigation. AM METHOMYL 90SP. Apply in 0.1 to 0.2 to nor more information.	
Anise (Fennel)	Cabbage Looper	1	7.	48 hrs
	Beet Armyworm	1/2 - 1		40 1113
	Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than10 applications per crop			
Apple( Ground application only)	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug Codling Moth	1/2 - 1 *	14	72 hrs
	(10-12 day spray intervals)			44
	Leafrollers (Fruit-tree, Obliquebanded, Redbanded, Variegated) Lesser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	1*		
		5 pounds of ROTAM MI 5 applications per crop;	ETHOMYL 90SP per acre per crop. minimum interval between treatments	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Asparagus	Beet Armyworm, Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/2		
		5 pounds of ROTAM METH 8 applications per crop.	HOMYL 90SP per acre per crop.	
Avocado	Western Avocado Leafroller Omnivorous Looper	1/2 - 1	1	48 hrs
		1 pound of ROTAM METH 2 applications per crop.	OMYL 90SP per acre per crop.	
Barley	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	Do not make more than Chemigation: ROTAM A chemigation. For best re Apply in 0.1 to 0.2 inche information  *Cereal leaf beetle: RO cereal leaf beetle eggs be timed to correspond hatch to achieve maxim registered in California.  **Aphids: For aphid con adverse environmental	4 applications per crop. METHOMYL 90SP may be a sults, use the highest lister as of water per acre. See Claram METHOMYL 90SP can when applied according to I with the appearance of new um ovicidal effect. Use on the trol, crop must be actively acconditions (such as, extrem wheat aphid need to begin	applied by overhead sprinkler drate of ROTAM METHOMYL 90SP. HEMIGATION section for more in provide contact ovicidal effect on abel directions. Application should all laid eggs or in anticipation of egg his pest stage (egg) is not currently growing and not under stress from the temperatures or drought).	
Beans (Succulent) Including: Kidney, Lima, Mung, Navy, Pinto, Snap, Wax, Broad, Fava, Asparagus, Blackeyed peas Cowpeas, Chick peas, Garbanzo beans,	Leafhopper Mexican Bean Beetle	1/4 – 1	Succulent Beans 1/4 – 1/2 lb.– 1, over 1/2 lb. – 3; 3 Vines 7 Hay	48 hrs
Sweet lupine, White sweet lupine	Fall Armyworm Variegated Cutworm	1/2		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Grain lupine	Beet Armyworm Corn Earworm Saltmarsh Caterpillar, Yellowstriped Armyworm Western Yellowstriped Armyworm, Lygus Bugs Thrips Aphids Loopers*	1/2 – 1		
	European Corn Borer (Ovicide & Larvicide) Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals to control eggs and larvae			
	Spotted Cucumber Beetle	1/4 – 1/2		
Beans (Dry) (Follow Beans, Succulent)	Do not make more than 1 * Do not use for Loopers  (Follow Beans, Succulent)	in AL & GA.	14 - Dry Beans * 14 - Vines * 14 - Hay *	48 hrs
	Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 10 applications per crop. Do not use for Loopers in AL & GA. *Do not apply within 14 days of cutting.			
Beets (Table)	Imported Cabbageworm	1/4 - 1	0 - roots 10 - tops	48 hrs
	Beet Armyworm Cabbage Looper Diamondback Moth	1/2 - 1		
	Cucumber Beetle Variegated Cutworm	1/2		- 1
	Do not apply more than 4 p Do not make more than 8		MYL 90SP per acre per crop.	
Bermudagrass pasture	Fall Armyworm Armyworm Striped Grass Looper	1/4 - 1	7 - Forage * 3 - Dehydrated Hay **	48 hrs
	Do not make more than 4	applications per crop. s of feeding forage or allowing	OMYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	1/2	3	48 hrs
	Cranberry Fruitworm* Cherry Fruitworm*	1/2 - 1		
	Flea Beetle (larvae) Sawfly (larvae) Blueberry Leafroller	1		2
	Blueberry Maggot	1/4 - 1/2		
Broccoli	Do not apply during blo Do not apply more than 4 Do not make more than * For ground use only.  Loopers, Diamondback Moth	pounds of ROTAM METHON	/YL 90SP per acre per crop.	48 hrs
	Imported Cabbageworm	1/4 - 1 **		
		10 applications per crop; n	HOMYL 90SP per acre per crop ninimum interval between treatments	
Brussels Sprouts	Loopers Imported Cabbageworm, Diamondback Moth	1/2 - 1 **	3	48 hrs
	Variegated Cutworm	1/2 **		
	Do not apply more than 6 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 10 applications per crop; minimum interval between treatments is 2 days.  ** Add a wetting agent to improve coverage			
Cabbage	Loopers * Diamondback Moth Fall Armyworm	1/2 - 1 **	1	48 hrs
	Imported Cabbageworm	1/4 - 1 **		
	Variegated Cutworm	1/2 **		100
		5 applications per crop; minims in AL & GA.	HOMYL 90SP per acre per crop. um interval between treatments is 2 days.	
Carrot	Beet Armyworm Armyworms Aster Leafhopper	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/4 - 1/2		
		7 pounds of ROTAM METI 10 applications per crop.	HOMYL 90SP per acre per crop.	
Cauliflower	Imported Cabbageworm	1/4 - 1 **	3	48 hrs
	Loopers Diamondback Moth	1/2 - 1 **		
	Variegated Cutworm	1/2 **		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
		applications per crop; mi	METHOMYL 90SP per acre per crop. nimum interval between treatments is 2 days.	
Celery	Beet Armyworm Aster Leafhopper	1/2 - 1	7	48 hrs
	Loopers	1		
	Variegated Cutworm	1/2		
	Armyworms	1/4 - 1		1
	Do not apply more than Do not make more than		METHOMYL 90SP per acre per crop.	14-
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1/2 - 1	80	48 hrs
	Do not apply more than 2 Do not make more than		METHOMYL 90SP per acre per crop.	
Chinese Cabbage	Loopers Beet Armyworm	1/2 - 1*	10	48 hrs
		10 applications/crop.	METHOMYL 90SP/acre/crop. und or 5 gallons by air.	
Collards (Fresh market	Diamondback Moth Variegated Cutworm	1/2	10	48 hrs
only)	Imported Cabbageworm Beet Armyworm Loopers*	1/2 - 1		
	Do not apply when temperature is less than 50° F.  Do not apply when crop is less than 10" tall.  Do not apply more than 6 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 8 applications per crop.  * Do not use for Loopers in AL & GA.			
Corn (Field, Popcorn & Seed)	Earworm (Ovicide/Larvicide) Armyworm Fall Armyworm European Corn Borer- Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids	1/4 - 1/2	21- Ears 3 - Forage* 21 - Stover*	48 hrs
	Variegated Cutworm, Beet Armyworm	1/2		
	Do not make more than *Com forage is green ac then plants can be fed di	10 applications per cro tively growing plants the irectly to animals or us main after removal of the	hat are harvested with the ears intact, ed to make silage. Corn stover are the he grain at full plant maturity. These	
Corn (Sweet)	Earworm-Whorl as needed	1/3 - 1/2	0 - Ears	48 hrs
			O Luis	1

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
	Earworm,- (Ovicide/Larvicide) European Com Borer- Ears 1-3 days or as needed Com Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids			
	Variegated Cutworm Beet Armyworm	1/2		
	area to determine crop : Do not apply more than	safety before full scale spra 7 pounds of ROTAM METI	ble to methomyl injury. Treat a small aying. HOMYL 90SP per acre per crop. ninimum interval between treatments	
Cotton All U.S.	Ovicide/Larvicide - Bollworm, Tobacco Budworm (Initiate schedule when significant numbers of eggs are present. Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) start treatment on low level population for suppression.  Cotton Leafworm Cotton Fleahopper (as needed)  Aphids, Thrips	1/8 - 1/4 (see Insect Predator Section)  1/4 - 1/2 1/8 - 1/4	15	72 hrs
East of Rockies Only	(Early Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adults and nymphs) Use as occasional spray in regular schedule but not more often than every 10 days.	1/2		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
East of Rockies Only	(Late Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adult and nymphs). Up to 3 applications at 3-5 day intervals after desired boll load set on plants.	1/2 - 3/4	.15	72 hrs
Texas	Cotton Aphid	1/4 - 2/3		
West of Rockies only	Larvicide for worms Bollworm, Fall Armyworm, Tobacco Budworm, Lygus Bugs Beet Armyworm	1/2 - 3/4		
	Cotton Leafperforator	1/3 - 3/4		
	Do not make more than	ns: 2 pounds of ROTAM METH 8 applications per crop .	HOMYL 90SP per acre per crop.	
	For all cotton application Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.	ns: 2 pounds of ROTAM METH		48 hrs
Cucumber	For all cotton application Do not apply more than Do not make more than Use may redden cotton.	ns: 2 pounds of ROTAM METH 8 applications per crop . If excessive stop or alterna	ate with other insecticides.	48 hrs
Cucumber	load set on plants.  For all cotton application Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm	ns: 2 pounds of ROTAM METH 8 applications per crop . If excessive stop or alterna	ate with other insecticides.	48 hrs
Cucumber	load set on plants.  For all cotton application Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm Variegated Cutworm Do not apply more than	ns: 2 pounds of ROTAM METH 8 applications per crop If excessive stop or alterna  1/2 - 1	ate with other insecticides.	48 hrs
Cucumber	load set on plants.  For all cotton application Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm Variegated Cutworm Do not apply more than	ns: 2 pounds of ROTAM METH 8 applications per crop If excessive stop or alterna  1/2 - 1	1/2 lb 1 Over 1/2 lb 3	48 hrs
	load set on plants.  For all cotton application Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm  Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only)  Beet Armyworm  Corn Earworm	1/2 6 pounds of ROTAM METH 12 applications per crop 1/2 - 1 1/2 - 1 1/2 - 1 1/2 - 1 1/2 - 1	1/2 lb 1 Over 1/2 lb 3	
	load set on plants.  For all cotton application Do not apply more than Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm  Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only)  Beet Armyworm  Corn Earworm	1/2 - 1  1/2 - 1  1/2 - 1  1/2 - 1  1/2 - 1  1/2 - 1  5 pounds of ROTAM METH 1/2 - 1	1/2 lb 1 Over 1/2 lb 3	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Garlic	Beet Armyworm  Do not apply more tha	1/2 **	7 HOMYL 90SP per acre per crop.	48 hrs
		an 6 applications per crop.		
Grapefruit CA, AZ & HI only	Thrips Fruittree Leafroller Orange Tortrix Western Tussock Moth Beet Armyworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop.			
Horseradish	Aphids Thrips	1/2	65	48 hrs
Ground application only		n 2 pounds of ROTAM METH an 4 applications per crop.	HOMYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Leafy Green Vegetables: Beet (tops) Dandelions, Kale,	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1/2 - 1	10	48 hrs
Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Do not apply more than 4 p Do not make more than 8 a * Do not use for Cabbage l	applications per crop .	MYL 90SP per acre per crop.	
Lemon CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1	72 hrs	
	Do not apply more than 3 p Do not make more than 4 a		MYL 90SP per acre per crop.	
Lentils	Western Yellowstriped Armyworm	1/2 - 1	21	48 hrs
	Do not apply more than 1 po not make more than 2 a		IYL 90SP per acre per crop.	
Lettuce	Alfalfa Looper	1/4 - 1	1/4-1/2 lb 7	48 hrs
(Head and Leaf varieties)	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1/2 - 1	over 1/2 lb 10	
	Variegated Cutworm	1/2		
	Do not make more than 15 2 days.  Lettuce (leaf varieties)  Do not apply more than 4 p  Do not make more than 8 a  days.	pounds of ROTAM METHO	MYL 90SP per acre per crop. mum interval between treatments is MYL 90SP per acre per crop. num interval between treatments is 2	
Melons Including: Canteloupe Casaba Santa Claus melon Crenshaw melon Honeydew melon Honey balls Persian melon Golden Pershaw	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1/2 - 1	1/2 lb 1 over 1/2 lb 3	48 hrs
melon	Variegated Cutworm	1/2		
Mango melon Pineapple melon Snake melon Watermelon			MYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Mint (Peppermint,	Variegated Cutworm Alfalfa Looper	1	14	48 hrs
Spearmint)	Flea Beetles	3/4 - 1		
	Do not apply more than a Do not make more than a	2 pounds of ROTAM METHOM 4 applications per crop.	IYL 90SP per acre per crop.	
Nectarine	Thrips	1/2 - 1	1	72 hrs
CA & AZ only	Do not apply more than Do not make more than	3 pounds of ROTAM METHON 3 applications per crop.	IYL 90SP per acre per crop.	
Oats	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	Do not make more than 4 applications per crop. Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: ROTAM METHOMYL 90SP can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.  **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			
Onlana	Beet Armyworm	1/2 - 1 **	7 - Green and	48 hrs
Onions (Green & Dry Bulb)	Thrips* Variegated Cutworm Black Cutworm	1 **	Dry Bulb Onions	
	Do not make more than days. Onions, dry bulb Do not apply more than do not make more than determinents is 5 days.  *Chemigation: ROTAM Notes that the control the per plant. For best results	4 pounds of ROTAM METHOM 8 applications per crop; minimu METHOMYL 90SP may be app orips. Begin applications before	um interval between treatments is 5  YL 90SP per acre per crop.  um treatment interval between	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Oranges CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruittree Leafroller Beet Armyworm Citrus Cutworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 places and the second seco		OMYL 90SP per acre per crop.	
Peaches	Catfacing Insects (Plant Bugs and Stink Bugs) - begin at petal fall and continue in cover sprays at 7-to 10-day intervals Oriental Fruit Moth* -begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use. Green Peach Aphid	1 lb (or 1/4 lb per 100 gal up to 400 gal per acre)	4	4 days
	Do not make more than 6 at 4 Oriental Fruit Moth (Grounds)	applications per crop. Ind Application Only).	OMYL 90SP per acre per crop.	
Peanuts	Corn Earworm* Potato Leafhopper Fall Armyworm	1/4 - 1	21	48 hrs
	Beet Armyworm	3/8 - 1		
	Green Cloverworm Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Granulate Cutworm	1/2 - 1		
	Do not make more than 8 at ** ROTAM METHOMYL 90. **Soybean Looper is difficu	applications per crop. SP has ovicidal and larvic ult to control.	OMYL 90SP per acre per crop.  cidal control on com earworm.  se higher rate for severe infestations.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Pears Northeast only	Green Fruitworm Oblique banded Leafroller	1/2 - 1 *	7	48 hrs
	Do not make more than		HOMYL 90SP per acre per crop. re.	
Peas (succulent) Including: Pigeon peas Chick peas Garbanzo beans Dwarf peas	Alfalfa Looper Cabbage Looper* Pea Aphid Beet Armyworm Saltmarsh Caterpillar Variegated Cutworm	1/2 - 1	1 - Peas 5 - Forage 14 - Hay	48 hrs
Garden peas Green peas English Peas	Alfalfa Caterpillar Armyworm Green Cloverworm	1/4 - 1		
Field peas Edible pod peas		6 applications per crop; mi	HOMYL 90SP per acre per crop. inimum interval between treatments is 3	
Pecans	Aphids	1/2 - 1	30	48 hrs
Southeast only		7 pounds of ROTAM METI		
Peppers Including: Bell Hot Pimentos	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1/2 - 1	3	48 hrs
Sweet	Variegated Cutworm	1/4 - 1/2		18
	European Corn Borer	1		
	Do not apply more than Do not make more than		HOMYL 90SP per acre per crop.	
	Omnivorous Leafroller	1	14	48 hrs
Pomegranates	Do not apply more than a Do not make more than	2 pounds of ROTAM METI 2 applications per crop.	HOMYL 90SP per acre per crop.	
Potato	Tuberworm* Loopers Aphids Beet Armyworm Leafhoppers Fall Armyworm	1/2 - 1	6	48 hrs
	Variegated Cutworm Flea Beetles	1/2		
		5 pounds of ROTAM METI 10 applications per crop.	HOMYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Last Applicat Lbs. Per Acre To Harv		REI
Potato (cont.)	chemigation. For best resulting Apply in 0.1 to 0.2 inches of Repeat applications of Repeat applications of Repeat applications of Repeat applications as low as possible to the resulting applications.	THOMYL 90SP may be applied by ults, use the highest listed rate of R of water per acre. See CHEMIGAT DTAM METHOMYL 90SP on a 5-7 orm populations. An application sci modes of action may be needed to sible prior to harvest to reduce the ely control tuberworm larvae prior to damage.	OTAM METHOMYL 90SP. ION section. day schedule, or longer as hedule of effective keep foliar feeding larval risk of larval damage to the	
Rye	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	chemigation. For best results Apply in 0.1 to 0.2 inches information.  *Cereal leaf beetle: ROTA cereal leaf beetle eggs what timed to correspond with the to achieve maximum ovicing registered in California.  **Aphids: For aphid control adverse environmental college.	tions per crop. ETHOMYL 90SP may be applied by alts, use the highest listed rate of R of water per acre. See CHEMIGATION METHOMYL 90SP can provide the applied according to label direct the appearance of newly laid eggs of dall effect. Use on this pest stage (edgl, crop must be actively growing an anditions (such as, extreme temperatheat aphid need to begin when applied.)	OTAM METHOMYL 90SP. ION section for more  contact ovicidal effect on tions. Application should be or in anticipation of egg hatch egg) is not currently  d not under stress from titures or drought).	
Sorghum	Sorghum Webworm	1/2 *	14 **	48 hrs
Including: Sudangrass (Except Sweet Sorghum)	Sorghum MidgeApply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Corn Earworm Armyworm	1/4 - 1/2 *		
	Do not make more than 2 * Minimum of 10 gallons po	pound of ROTAM METHOMYL 908 applications per crop. er acre by ground or 2 gallons per a days of feeding forage or cutting for	acre by air.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Soybeans	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Corn Earworm Light to Moderate infestations	1/8 - 1/4 (see Insect Predator section)	14 - Soybeans 3 - Forage 12 - Hay	48 hrs
	Moderate to severe infestations	1/4 - 1/2		
	Soybean Aphid	1/6 - 1/3		
	Beet Armyworm Salt Marsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper Light to Moderate infestations	1/4 - 3/8		
	Moderate to severe infestations	3/8 - 1/2		
	Do not apply more than 1 make more than 3 applica		OMYL 0SP per acre per crop. Do not	
Spinach	Alfalfa Loopers Cabbage Looper Beet Armyworm Fall Armyworm	1/2 - 1	7	48 hrs
	Variegated Cutworm	1/2		
	Do not apply to seedlings	um daily temperature is 32° I less than 3" diameter. pounds of ROTAM METHOI	F, or lower.  MYL 90SP per acre per crop.	
Sugar Beet	Do not apply when minimed to not apply to seedlings.  Do not apply more than 4	um daily temperature is 32° I less than 3" diameter. pounds of ROTAM METHOI		48 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Sugar Beet (cont.)	Do not make more than 10 a *Chemigation: ROTAM MET chemigation to control beet best results, use the highest	ounds of ROTAM METHOMYL 9 applications per crop. THOMYL 90SP may be applied be armyworm, aphids and western the listed rate of ROTAM METHOM are CHEMIGATION section for more contents.	by overhead sprinkler yellowstriped armyworm. For MYL 90SP. Apply in 0.1 to 0.2	
Summer Squash* Including: Crookneck squash Straightneck squash Scallop squash Vegetable marrow Spaghetti squash Hyotan Cucuzza	Fall Armyworm	1/2 - 1	1/2 lb 1 day over 1/2 lb 3 days	48 hrs
Hechima Chinese okra Bitter melon Balsam pear Balsam apple Chinese Cucumber	Do not make more than 12 a *Fruit of the Gourd (Cucurbi fruit is edible cooked or raw,	ounds of ROTAM METHOMYL 9 applications per crop. t accae) family that are consume, once picked cannot be stored, let harvested they would not gen	ed when immature, 100% of the has a soft rind which is easily	
Tangelo, Tangerine CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix, Beet Armyworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 po Do not make more than 4 ap	ounds of ROTAM METHOMYL 9 oplications per crop.	OSP per acre per crop.	
Tobacco (Except shade)	Flea Beetle Hornworm	1/4 - 1/2	5 - Flue cured 14 - Air or fire cured	48 hrs
	Loopers Aphids Tobacco Budworm Fall Armyworm	1/2		
	Do not apply more than 2.5 Do not make more than 5 ap	pounds of ROTAM METHOMYL oplications per crop.	90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Tomato (Including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southem Armyworm Pinworm Armyworm Fall Armyworm	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/2		
	Do not make more than 16	applications per crop.  y more than 5 pounds o	HOMYL 90SP per acre per crop  f ROTAM METHOMYL 90SP per acre	
Turf (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	1 (2/5 ozs. per 1000 sq. ft.)		48 hrs
	Do not apply more than 4 p Do not make more than 4 a Do not graze or feed.		HOMYL 90SP per acre per crop.	
4	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
Wheat	Do not make more than 4 a Chemigation: ROTAM MET chemigation. For best resul Apply in 0.1 to 0.2 inches o information.  "Cereal leaf beetle: ROTAM cereal leaf beetle eggs whe timed to correspond with the to achieve maximum ovicid in California.  **Aphids: For aphid control, adverse environmental con	pplications per crop. HOMYL 90SP may be a ts, use the highest lister f water per acre. See Cl METHOMYL 90SP ca en applied according to le e appearance of newly le al effect. Use on this pe crop must be actively g ditions (such as, extrem	ADMYL 90SP per acre per crop.  applied by overhead sprinkler of rate of ROTAM METHOMYL 90SP. HEMIGATION section for more  n provide contact ovicidal effect on abel directions. Application should be laid eggs or in anticipation of egg hatch st stage (egg) is not currently registered growing and not under stress from the temperatures or drought).	

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**PESTICIDE STORAGE:** Handle this package carefully to prevent breakage of inner bag when stored at low temperatures. Allow to warm above 50 Deg.F for normal handling. Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for quidance.

CONTAINER DISPOSAL: For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam Agrochemical Company Limited or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam Agrochemical Company Limited and Seller harmless for any claims relating to such factors.

Rotam Agrochemical Company Limited warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam Agrochemical Company Limited, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM LTD MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, Rotam Agrochemical Company Limited or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM AGROCHEMICAL COMPANY LIMITED AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM AGROCHEMICAL COMPANY LIMITED OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Rotam Agrochemical Company Limited and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam Agrochemical Company Limited.

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Registered: [TBA]

### RESTRICTED USE PESTICIDE

#### **Due to high Acute Toxicity to Humans**

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient	By Weight	
Methomyl		
(S-methyl-N-[(methylcarbamoyl)		
oxy]thioacetimidate)	90%	
Other Ingredients	10%	
TOTAL	100%	

EPA Reg. No. 83100 - 28

Manufactured by:
Rotam Agrochemical Company Ltd.
7/F Cheung Tat Centre
18 Cheung Lee Street
Chai Wan, Hong Kong
1-866-927-6826

Registered: (TBA)

EPA Est. No.: 69821-CHN-005

Net Contents: Packets/Container TBA

# DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Refer to inside label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions For Use.

#### FIRST AID

#### (N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. **IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

### ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

**POISONING SYMPTOMS** — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.



#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Fatal if swallowed. May be fatal if inhaled or gets in eyes. Do not breathe dust. Do not get in eyes. Avoid contact with clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- Long sleeve shirt and long pants.
- · Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- · Socks and chemical resistant footwear.
- · Protective eyewear.
- · Chemical resistant apron.

For exposures in enclosed areas: Respirator with either an organic vaporremoving cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry

### USER SAFETY RECOMMENDATIONS USERS SHOULD:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**PESTICIDE STORAGE:** Handle this package carefully to prevent breakage of inner bag when stored at low temperatures. Allow to warm above 50 Deg.F for normal handling. Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke

In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.

Manufactured by:
Rotam Agrochemical Company Ltd.
7/F Cheung Tat Centre
18 Cheung Lee Street
Chai Wan, Hong Kong
1-866-927-6826

Net Contents:
Packets/Container
TBA



#### Frank Sobotka o Thomas Harris

04/05/2011 10:10 AM

History:

This message has been replied to.

Trust I found and made all the correct changes you indicated on your email. See attached revised labels. Please acknowledge receipt of this email. Thanks,

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238

PH: 215 497-9501 FX: 215 497-9502

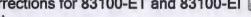




083100-0027.20110405.Primary Lbl.pdf 083100-0028.20110405.Primary Lbl.pdf



#### a few more corrections for 83100-ET and 83100-EI



Thomas Harris o Frank Sobotka

04/05/2011 05:00 AM

Dr. Sobotka,

Thanks for the revised labels. You did a good job correcting them. I noticed you even found a few errors I had missed (eg. First Aid, If Swallowed). Just a few more corrections. I'll be in meetings for a few hours Tuesday morning so you'll have time to make these changes and email me revised labels.

#### 83100-ET

- 1) Front panel(s) Below ingredient statement (all occurrences throughout label) put a placeholder for text to say either "refillable container" or "nonrefillable container". This text is referenced in the Storage Disposal and guides the user to the proper disposal directions.
- 2) Precautionary Statements Delete the personal protective equipment text at the end of the intro paragraph ("Contains methanol. Methanol may cause blindness ...."). This text is not necessary since it is followed by a PPE section. Worse, it conflicts with PPE section in some areas.

Note: It is ok to retain a general reference like "wear protective eyewear" in the Precautionary Statement intro paragraph if you wish to emphasize a particularly important piece of PPE. Just be careful that the text does not conflict with the specific PPE in the PPE section. If in doubt, leave PPE out of intro paragraph. Note 2: You may have copied this from the acute tox review. Don't. We have a program that writes the text for the review when you enter the acute tox categories but

the grammar in the resulting text is terrible and the PPE not entirely complete. Instead, determine the PPE using the acute tox categories and the Label Review Manual.

3) DFU/Crop Directions - In several locations (eg. alfalfa, barley, oats, peas, potato, rye, wheat) you have added two sentences for the concepts to a) use a wetting agent to improve performance, and b) spray at 5-7 day intervals. Where did these come from? I don't see them on the Dupont label. While I normally wouldn't care about directions on optimizing performance, the wetting agent could be a problem. When we set tolerances the residue studies were suppose to have been done either with or without a surfactant as directed on the label. It would be fairly common for residues set without a surfactant to be exceeded when a surfactant is used (i.e. the surfactant often enhances penetration into crop).

Either a) delete these two statements (at least wetting agent one) (all occurrences) if you just added them without similar text on the Dupont label or b) you can leave them if they appear somewhere on the Dupont label.

- 4) DFU/peas Delete chemigation text. This does not occur on the Dupont Sec 3 label. Might be on an SLN or Supplemental but you should not use on Rotam product.
- 5) DFU/Storage and Disposal Looks good; very complete. If you wish, you can delete directions for any type/size container that will not be used by Rotam product. For example, if you will only market in non-refillable 2.5 and 5 gal containers then you do not need the >5 gal or IBC or refillable directions. Up to you.

6) p. 38, back page of booklet that remains on container - Delete the current PPE paragraph. Replace with PPE section as per earlier in label on p. 5. As before, current PPE in paragraph does not agree with PPE section (latter is correct).

#### 83100-EI

1) Precautionary Statements -

a) Replace intro paragraph with the following which separates hazards and what not to do text:

"Fatal if swallowed. May be fatal if inhaled or gets in eyes. Do not breathe dust. Do not get in eyes. Avoid contact with clothing."

b) Delete washing instructions. Put in separate section per (d) below.

c) Delete the personal protective equipment text at the end of the intro paragraph ("Fatal if swallowed...."). This text is not necessary since it is followed by a PPE section. Worse, it conflicts with PPE section in some areas.

Note: It is ok to retain a general reference like "wear protective eyewear" in the Precautionary Statement intro paragraph if you wish to emphasize a particularly important piece of PPE. Just be careful that the text does not conflict with the specific PPE in the PPE section. If in doubt, leave PPE out of intro paragraph.

d) Add a "User safety recommendations" section as on 83100-ET.

2) Precautionary Statements, PPE - Delete "Respirator as outlined below" bullet, "For exposure in enclosed areas", Start "Respirator" with capital "R", delete "For exposures outdoors." Sorry, I missed these in my initial review.

Note: The "Engineering control" section will provide alternate PPE for normal use of the water soluble packets by mixer/loaders. The PPE section is used by other handlers (applicators, cleaners, etc).

3) DFU/Storage Disposal - If you will only package in water soluble packets in foil liner in a box, you can delete the disposal sections for "fiber drums with liners" and "paper and plastic bags". Dupont uses these for some bulk product but they may not apply to Rotam product. Your choice.



- 4) p. 38, back page of booklet that remains on container As in #1 above,
- a) Correct intro Precautionary Statements paragraph.
- b) Delete washing instructions in intro paragraph.
- c) Remove current PPE in intro paragraph in Precautionary Statements.
- d) Add a PPE section as on p. 5 earlier in label.
- e) Add a "User safety recommendations" section as on 83100-ET.

Excuse the odd hour of sending this. I had reviewed your revised labels yesterday afternoon then brought them home to write/send this email. In the middle of writing the corrections our power went out. Of course, I had not save my corrections as I wrote them! Power just came back on along with all the lights in the house, hence I'm awake! You can be sure I save my writing a dozen times as I composed this email. I'd better send this email before power goes out again.

Tom Harris EPA/OCSPP/OPP/RD/IRB voice: (703) 308-9423 fax: (703) 308-0029



**Due to High Acute Toxicity to Humans** 

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP

1A

INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient	By Weight	
Methomyl		
(S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)	90%	
Other Ingredients	10%	
TOTAL	100%	

EPA Reg. No. 83100 - 28

EPA Est. No.: 69821-CHN-005

# DANGER POISON



#### **PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions for Use on inside booklet.

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Net Contents:
Packets/Container
TBA



### RESTRICTED USE PESTICIDE

**Due to High Acute Toxicity to Humans** 

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient	By Weight
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EPA Reg. No. 83100 - 28

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Net Contents:

EPA Est. No.: 69821-CHN-005

Packets/Container TBA

# DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Refer to inside label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions For Use.

## FIRST AID (N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

## ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention. POISONING SYMPTOMS — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

#### **NOTE TO PHYSICIAN**

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.

#### PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS
AND DOMESTIC ANIMALS
KEEP OUT OF REACH OF CHILDREN

DANGER

POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Fatal if swallowed. May be fatal if inhaled or gets in eyes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Do not breathe dust. Remove and wash contaminated clothing before reuse. Avoid contact with clothing. Do not get in eyes. Wear protective eyewear. Wear: Long-sleeved shirt and long pants, socks, chemical-resistant shoes, and chemical-resistant gloves (such as barrier laminate or butyl rubber).

For handling activities, use a non-powered air purifying respirator equipped with an N-, R-, or P- series filter.

# PRECAUTIONARY STATEMENTS (Continued) HAZARDS TO HUMAN AND DOMESTIC ANIMALS

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- · Long sleeve shirt and long pants.
- · Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- · Socks and chemical resistant footwear.
- · Protective eyewear.
- Respirator as outlined below.
- · Chemical resistant apron.

For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

For exposures outdoors, Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P, or HE prefilter.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry

#### **ENGINEERING CONTROL STATEMENTS**

Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

Pilots must not assist in the mixing and loading operations.

#### **USER SAFETY RECOMMENDATIONS**

#### **Users Should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- · Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

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 Agricultural Use Requirements
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 Scouting
 Insect Predators
 Resistance

Compatibility
Integrated Pest Management
Spray Preparation
Application
Spray Drift Management
Crop and Rate Tables
Storage and Disposal
Notice of Warranty

# DIRECTIONS FOR USE Restricted Use Pesticide

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all >14 mils
- Shoes plus socks
- Protective eyewear

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Do not formulate this product into other End-use products without written permission from Rotam.

Do not apply thru Drip Chemigation unless accompanied by Rotam supplemental Labeling.

ROTAM METHOMYL 90SP insecticide should be used only in accordance with directions for use on this label or in separate Rotam supplemental labeling. Rotam will not be responsible for use of the product in a manner not specified by Rotam in the product's labeling and User assumes all risk for such use.

ROTAM METHOMYL 90SP is a dry powder to be dissolved in water for application by mechanical ground, overhead sprinkler, or aerial application Hand-

held equipment is hibited for application to crops.



Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Pilots must not assist in the mixing and loading operations.

Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

#### RESISTANCE MANAGEMENT

For resistance management, ROTAM METHOMYL 90SP insecticide is a group 1A insecticide. Repeated and exclusive use of ROTAM METHOMYL 90SP or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org.

#### INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### SCOUTING



Monitor insect populations to determine whether or not there is a need for application of ROTAM METHOMYL 90SP based on locally determined economic thresholds. More than one treatment of ROTAM METHOMYL 90SP may be required to control a population of pests.

#### **BENEFICIAL ANTHROPODS**

ROTAM METHOMYL 90SP at rates of 1/8 to 1/4 lb. per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying ROTAM METHOMYL 90SP.

Fill spray tank 1/4 to 1/2 full of water. Add ROTAM METHOMYL 90SP directly to spray tank. Carefully open the outer barrier bag containing ROTAM METHOMYL 90SP in a water soluble bag. Do not cut open the outer barrier bag. Invert the outer barrier bag allowing the inner water soluble bag to fall directly into the spray tank. Do not allow packets to become wet prior to adding to the spray tank. Do not handle, open, rip, tear, cut or perforate the inner water soluble bag. Mix thoroughly to fully dissolve the insecticide; once dissolved continued agitation is not required. Use mechanical or hydraulic means; do not use air agitation. Be sure the soluble packet is completely dissolved before adding any other ingredients. Spray mix should not be stored overnight in spray tank.

Compatibility: Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use ROTAM METHOMYL 90SP with Bordeaux mixture (copper sulfate and hydrated lime), "Du Ter" (triphenyltin hydroxide), lime sulfur, "Rayplex" iron nor in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

Tank-mix solutions containing Boron may affect solubility of the water soluble film. When using Boron containing solutions in a tank-mix, follow these procedures:

- Add the correct amount of ROTAM METHOMYL 90SP water soluble packets first
- Be sure the soluble packets are completely dissolved
- Introduce Boron containing solutions last

If the above procedure cannot be followed, and Boron is an essential part of the spray mix, substitute ROTAM METHOMYL 29LV formulation for the water soluble packets.

**Tank Mix Sequence:** Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

- 1. ROTAM METHOMYL 90SP and other products in water soluble bags.
- 2. Water dispersible granules
- 3. Wettable powders
- 4. Water based suspension concentrates
- 5. Water soluble concentrates

- 6. Oil based ension concentrates
- 7. Emulsifiable concentrates
- 8. Adjuvants, surfactants, oils
- 9. Soluble fertilizers
- 10. Drift retardants

Follow local practice and manufacturer's recommendation.

#### **APPLICATION**

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of ROTAM METHOMYL 90SP should be applied, as needed, to keep pest populations within threshold limits. On most crops, ROTAM METHOMYL 90SP should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since ROTAM METHOMYL 90SP is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for peaches and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.

For certain crops a minimum of 1 gallon per acre may be used providing the following conditions are met:

- -equipment is adjusted to distribute spray uniformly over the spray swath,
- wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area,
- -local regulations do not prohibit low-volume aerial sprays,
- -use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa Celerv Peas (succulent) Peppermint Collards Anise Corn Cotton Peppers Asparagus Barley Potato Beans Cucumber Rye Soybean Broccoli Lettuce Brussels sprouts Melons Spinach Mint Sugar beet Cabbage Summer Squash Carrot Oats Cauliflower **Peanuts** Wheat

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

#### SPRAY TANK CLEANOUT

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other a sociated application equipment. Take necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

#### CHEMIGATION

Instructions for the Use of ROTAM METHOMYL 90SP on Alfalfa, Barley, Oats, Green and Dry Bulb Onions, Potatoes, Rye, Sugar Beets and Wheat Using Overhead Sprinkler Chemigation

Do not apply thru Drip Chemigation unless accompanied by Rotam supplemental Labeling.

Chemigation: Overhead sprinkler chemigation is allowed for use in alfalfa, barley, oats, onions, potatoes, rye, sugar beets, and wheat. Refer to supplemental, or Special Local Need (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of ROTAM METHOMYL 90SP as high as possible in the application. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. ROTAM METHOMYL 90SP is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of ROTAM METHOMYL 90SP should take place when the insects are active and most likely to come into direct contact with the application.

#### **Types of Irrigation Systems**

ROTAM METHOMYL 90SP may be applied through overhead sprinkler irrigation systems for control of various pests. Center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems; such as end tow, side (wheel) roll and solid set, may be used if they provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 90SP through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

# General Directions for Chemigation Preparation

A pesticide tank is recommended for the application of ROTAM METHOMYL 90SP in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 90SP into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 90SP. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7)

Injection into Changation Systems

Inject the proper amount of the ROTAM METHOMYL 90SP solution to the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing ROTAM METHOMYL 90SP into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing ROTAM METHOMYL 90SP to the irrigation water line, and apply no more than 0.2 inches of water per acre, just before the end of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 90SP must provide for uniform distribution of ROTAM METHOMYL 90SP treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other experts if you have questions about achieving uniform distribution of the application.

**Equipment Calibration** 

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 90SP. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

**Monitoring of Chemigation Applications** 

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 90SP is in the irrigation water.

#### Required System Safety Devices

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

- 1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut

off the pesticide in so on pump when the water pump moto

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### Posting of Areas to be Treated

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices be plugged to prevent contamination of these areas.

Do not apply when and speed favors drift beyond the area ended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

#### Cleaning the System

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid offtarget drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the <u>Aerial Drift Reduction Advisory Information</u>.

# AERIAL DRIFT REDUCTION ADVISORY INFORMATION Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See WIND, TEMPERATURE AND HUMIDITY, and TEMPERATURE INVERSIONS sections of this label.

#### **Controlling Droplet Size – General Techniques**

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### **Controlling Droplet Size - Aircraft**

- Number of Notes Use the minimum number of noze that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel
  to the airstream produces larger droplets than other orientations and is the
  recommended practice. Significant deflection from horizontal will reduce
  droplet size and increase drift potential.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
- Boom Length For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application Height Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- Swath Adjustment When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downward edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

#### **BOOM HEIGHT**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. AVOID GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

# AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

## AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

Adjust deflectors and aiming devices so that spray is only directed into the canopy.

Block off upward pointed nozzles when there is no overhanging canopy.

Use only enough air volume to penetrate the canopy and provide good coverage.

Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.



### CROP AND RATE CHARTS



Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid Lygus Bugs Blotch Leafminer Aphids Egyptian Alfalfa Weevil Larvae Loopers Beet Armyworm Armyworm Alfalfa Caterpillar Fall Armyworm Westem Yellowstriped Armyworm Yellowstriped Armyworm	1/2 – 1	7*	48 hrs
	Alfalfa Weevil Larvae	1		
	Variegated Cutworm	1/4 - 1		
	Do not apply more than a Do not make more than a Chemigation: ROTAM ME For best results, use the hi inches of water per acre.	4 pounds of ROTAM MET 10 applications per crop. THOMYL 90SP may be a		
Anise (Fennel)	Cabbage Looper	1	7	48 hrs
	Beet Armyworm	1/2 - 1		40 1113
	Do not apply more than a Do not make more than 1		HOMYL 90SP per acre per crop.	
Apple( Ground application only)	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug	1/2 - 1 *	14	72 hrs
	Codling Moth (10-12 day spray intervals)			
	Leafrollers (Fruit-tree, Obliquebanded, Redbanded, Variegated) Lesser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	1*		
	Do not apply more than a Do not make more than a is 7 days.		HOMYL 90SP per acre per crop. inimum interval between treatments	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Asparagus	Beet Armyworm, Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/2		
		5 pounds of ROTAM MET 8 applications per crop.	HOMYL 90SP per acre per crop.	10000
Avocado	Western Avocado Leafroller Omnivorous Looper	1/2 - 1	1	48 hrs
		1 pound of ROTAM METH 2 applications per crop.	OMYL 90SP per acre per crop.	
Barley	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	Do not make more than Chemigation: ROTAM Notemigation. For best reading and the information are all leaf beetle: ROTAM Note and the information are all leaf beetle eggs to be timed to correspond hatch to achieve maximal registered in California. **Aphids: For aphid con adverse environmental contents.	4 applications per crop. METHOMYL 90SP may be esults, use the highest listers of water per acre. See Comment of the control of the control of the control of the conditions (such as, extrem the conditions (such as, extrem the conditions (such as, extrem the conditions of the conditions (such as, extrem the conditions of the conditions (such as, extrem the conditions of t	applied by overhead sprinkler d rate of ROTAM METHOMYL 90SP. HEMIGATION section for more in provide contact ovicidal effect on label directions. Application should why laid eggs or in anticipation of egg this pest stage (egg) is not currently growing and not under stress from the temperatures or drought).	
Beans (Succulent) Including: Kidney, Lima, Mung, Navy, Pinto, Snap, Wax, Broad, Fava, Asparagus, Blackeyed peas Cowpeas, Chick peas,	Leafhopper Mexican Bean Beetle	1/4 – 1	Succulent Beans 1/4 – 1/2 lb 1, over 1/2 lb 3; 3 Vines 7 Hay	48 hrs
Garbanzo beans,				

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Grain lupine	Beet Armyworm Corn Earworm Saltmarsh Caterpillar, Yellowstriped Armyworm Western Yellowstriped Armyworm, Lygus Bugs Thrips Aphids Loopers*	1/2 – 1		
	European Corn Borer (Ovicide & Larvicide) Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals to control eggs and larvae			
	Spotted Cucumber Beetle	1/4 – 1/2		
	Succulent Beans - Do not apply more than 5 Do not make more than 6 * Do not use for Loopers	10 applications per crop.	HOMYL 90SP per acre per crop.	
Beans (Dry) (Follow Beans, Succulent)	(Follow Beans, Succulent)	(Follow Beans, Succulent)	14 - Dry Beans * 14 - Vines * 14 - Hay *	48 hrs
	Do not apply more than 8 Do not make more than 9 Do not use for Loopers in *Do not apply within 14 d	10 applications per crop.  1 AL & GA.	HOMYL 90SP per acre per crop.	
Beets (Table)	Imported Cabbageworm	1/4 - 1	0 - roots 10 - tops	48 hrs
	Beet Armyworm Cabbage Looper Diamondback Moth	1/2 - 1		
	Cucumber Beetle Variegated Cutworm	1/2		
	Do not apply more than 4 p		/IYL 90SP per acre per crop.	
Bermudagrass pasture	Fall Armyworm Armyworm Striped Grass Looper	1/4 - 1	7 - Forage * 3 - Dehydrated Hay **	48 hrs
	Do not make more than 4	applications per crop. s of feeding forage or allowing	OMYL 90SP per acre per crop.	
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	20	3	48 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	RE
	Cranberry Fruitworm* Cherry Fruitworm*	1/2 - 1		57.
	Flea Beetle (larvae) Sawfly (larvae) Blueberry Leafroller	1		
	Blueberry Maggot	1/4 - 1/2		
	Do not apply during blood Do not apply more than 4 Do not make more than * For ground use only.	pounds of ROTAM METHON applications per crop.	/IYL 90SP per acre per crop.	
Broccoli	Loopers, Diamondback Moth	1/2 - 1 **	3	48 hrs
	Imported Cabbageworm	1/4 - 1 **		
		10 applications per crop; n	HOMYL 90SP per acre per crop ninimum interval between treatments	
Brussels Sprouts	Loopers Imported Cabbageworm, Diamondback Moth	1/2 - 1 **	3	48 hrs
	Variegated Cutworm	1/2 **		
Cabbage		applications per crop; minim	HOMYL 90SP per acre per crop. um interval between treatments is 2 days.	48 hrs
	Fall Armyworm Imported	1/4 - 1 **		
	Cabbageworm	1/2 **		
		8 pounds of ROTAM METI 5 applications per crop; minimi s in AL & GA.	HOMYL 90SP per acre per crop. um interval between treatments is 2 days.	
Carrot	Beet Armyworm Armyworms Aster Leafhopper	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/4 - 1/2		
		7 pounds of ROTAM METI 10 applications per crop.	HOMYL 90SP per acre per crop.	
Cauliflower	Imported Cabbageworm	1/4 - 1 **	3	48 hrs
	Loopers Diamondback Moth	1/2 - 1 **		
	Variegated Cutworm	1/2 **	HOMVI COCD	
		Dapplications per crop; minimu	HOMYL 90SP per acre per crop. Im interval between treatments is 2 days.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Celery	Beet Armyworm Aster Leafhopper	1/2 - 1	7	48 hrs
	Loopers	1		
	Variegated Cutworm	1/2		
	Armyworms	1/4 - 1		
	Do not apply more than a Do not make more than		METHOMYL 90SP per acre per crop, op.	
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1/2 - 1	80	48 hrs
	Do not apply more than a Do not make more than a		METHOMYL 90SP per acre per crop.	
Chinese Cabbage	Loopers Beet Armyworm	1/2 - 1*	10	48 hrs
	Do not apply more than to Do not make more than * Minimum of 25 gallons	10 applications/crop.	METHOMYL 90SP/acre/crop. und or 5 gallons by air.	
Collards (Fresh market	Diamondback Moth Variegated Cutworm	1/2	10	48 hrs
only)	Imported Cabbageworm Beet Armyworm Loopers*	1/2 - 1		
	Do not apply when temp Do not apply when crop Do not apply more than to Do not make more than to * Do not use for Loopers	is less than 10" tall. 6 pounds of ROTAM N 8 applications per crop	METHOMYL 90SP per acre per crop.	
Corn (Field, Popcom & Seed)	Earworm (Ovicide/Larvicide) Armyworm Fall Armyworm European Com Borer- Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids Variegated Cutworm,	1/4 - 1/2	21- Ears 3 - Forage* 21 - Stover*	48 hrs
	Do not make more than *Corn forage is green ac then plants can be fed di	10 applications per cro tively growing plants the rectly to animals or us main after removal of the	hat are harvested with the ears intact, ed to make silage. Corn stover are the he grain at full plant maturity. These	
Corn (Sweet)	Earworm-Whorl as needed	1/3 - 1/2		48 hrs
	Fall Armyworm Armyworm Earworm,- (Ovicide/Larvicide)	1/4 - 1/2	0 - Ears 3 - Forage 21- Stover	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
	European Corn Borer- Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids			
	Variegated Cutworm Beet Armyworm	1/2		
	area to determine crop s Do not apply more than	safety before full scale spra 7 pounds of ROTAM MET	ble to methomyl injury. Treat a small aying. HOMYL 90SP per acre per crop. ninimum interval between treatments	
Cotton All U.S.	Ovicide/Larvicide - Bollworm, Tobacco Budworm (Initiate schedule when significant numbers of eggs are present. Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) start treatment on low level population for suppression.	1/8 - 1/4 (see Insect Predator Section)	15	72 hrs
	Cotton Leafworm Cotton Fleahopper (as needed)	1/4 - 1/2 1/8 - 1/4		
	Aphids, Thrips	1/4		
East of Rockies Only	(Early Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adults and nymphs) Use as occasional spray in regular schedule but not more often than every 10 days.	1/2		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Only	Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant  Bugs (adult and nymphs). Up to 3			
	applications at 3-5 day intervals after desired boll load set on plants.			
Texas	Cotton Aphid	1/4 - 2/3		
West of Rockies only	Larvicide for worms Bollworm, Fall Armyworm, Tobacco Budworm, Lygus Bugs Beet Armyworm	1/2 - 3/4		
	Cotton Leafperforator	1/3 - 3/4		
	For all cotton applicati		HOMYL 90SP per acre per crop.	
	Do not make more than	8 applications per crop . If excessive stop or alterna		
Cucumber	Do not make more than Use may redden cotton.	8 applications per crop .		48 hrs
Cucumber	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm	8 applications per crop . If excessive stop or alternations	ate with other insecticides.	48 hrs
Cucumber	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than	8 applications per crop . If excessive stop or alternative and the stop of the	ate with other insecticides.	48 hrs
Cucumber	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than	8 applications per crop .  If excessive stop or alternative and the stop of alternativ	1/2 lb 1 Over 1/2 lb 3	
Cucumber	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than	8 applications per crop . If excessive stop or alternative and the stop of the	1/2 lb 1 Over 1/2 lb 3	
	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm Do not apply more than	8 applications per crop .  If excessive stop or alternative and the stop of alternativ	1/2 lb 1 Over 1/2 lb 3	48 hrs
Eggplant	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm  Do not apply more than Do not make more than	8 applications per crop .  If excessive stop or alternative and the stop of alternativ	HOMYL 90SP per acre per crop.	
	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm Do not apply more than Do not make more than Do not make more than Do not apply more than Do not make more than Do not apply more than Do not apply more than Do not apply more than	8 applications per crop .  If excessive stop or alternative stop o	HOMYL 90SP per acre per crop.  5	48 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
		an 6 applications per crop. t to improve coverage.		
Grapefruit CA, AZ & HI only	Thrips Fruittree Leafroller Orange Tortrix Western Tussock Moth Beet Armyworm	1/2 - 1	1	72 hrs
		an 3 pounds of ROTAM METH an 4 applications per crop.	HOMYL 90SP per acre per crop.	
Horseradish	Aphids Thrips	1/2	65	48 hrs
Ground application only		an 2 pounds of ROTAM METH an 4 applications per crop.	HOMYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Leafy Green Vegetables: Beet (tops) Dandelions, Kale, Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1/2 - 1	10	48 hrs
	Do not apply more than 4 p Do not make more than 8 a * Do not use for Cabbage I	applications per crop .	MYL 90SP per acre per crop.	
Lemon CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 p Do not make more than 4 a		MYL 90SP per acre per crop.	
Lentils	Western Yellowstriped Armyworm	1/2 - 1	21	48 hrs
	Do not apply more than 1 p		IYL 90SP per acre per crop.	
Lettuce	Alfalfa Looper	1/4 - 1	1/4-1/2 lb 7	48 hrs
(Head and Leaf varieties)	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1/2 - 1	over 1/2 lb 10	
	Variegated Cutworm	1/2		1
	Do not make more than 15 2 days.  Lettuce (leaf varieties)  Do not apply more than 4 p  Do not make more than 8 a  days.	applications per crop; mini counds of ROTAM METHO applications per crop; minin	MYL 90SP per acre per crop. mum interval between treatments is  MYL 90SP per acre per crop. num interval between treatments is 2	
Melons Including: Canteloupe Casaba Santa Claus melon Crenshaw melon Honeydew melon Honey balls Persian melon Golden	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1/2 - 1	1/2 lb 1 over 1/2 lb 3	48 hrs
Pershaw melon	Variegated Cutworm	1/2		
Mango melon Pineapple melon Snake melon Watermelon	Do not apply more than 6 p Do not make more than 12		MYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Mint (Peppermint, Spearmint)	Variegated Cutworm Alfalfa Looper	1	14	48 hrs
	Flea Beetles	3/4 - 1	(RESERVA VELVA	
	Do not apply more than Do not make more than	2 pounds of ROTAM METHOM 4 applications per crop.	IYL 90SP per acre per crop.	
Nectarine	Thrips	1/2 - 1	1	72 hrs
CA & AZ only	Do not apply more than Do not make more than	3 pounds of ROTAM METHOM 3 applications per crop.	IYL 90SP per acre per crop.	
Oats	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	chemigation. For best re Apply in 0.1 to 0.2 inche information.  *Cereal leaf beetle: ROT leaf beetle eggs when a correspond with the app maximum ovicidal effect California.  **Aphids: For aphid contadverse environmental of the contage of the con	s of water per acre. See CHEM  AM METHOMYL 90SP can propplied according to label directive arance of newly laid eggs or in the control of the	e of ROTAM METHOMYL 90SP.  IIGATION section for more  ovide contact ovicidal effect on cereal ions. Application should be timed to a anticipation of egg hatch to achieve s not currently registered in	
	Beet Armyworm	1/2 - 1 **	7 - Green and	48 hrs
Onions (Green & Dry Bulb)	Thrips* Variegated Cutworm Black Cutworm	1 **	Dry Bulb Onions	
	Do not make more than days.  Onions, dry bulb  Do not apply more than treatments is 5 days.  *Chemigation: ROTAM the chemigation to control the per plant. For best results	4 pounds of ROTAM METHOM 8 applications per crop; minimu METHOMYL 90SP may be appririps. Begin applications before its, add a wetting agent. Apply interior for more information.	um interval between treatments is 5  IYL 90SP per acre per crop.  um treatment interval between	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Oranges CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruittree Leafroller Beet Armyworm Citrus Cutworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 4 applications per crop.			
Peaches	Catfacing Insects (Plant Bugs and Stink Bugs) - begin at petal fall and continue in cover sprays at 7-to 10-day intervals Oriental Fruit Moth* -begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use. Green Peach Aphid	1 lb (or 1/4 lb per 100 gal up to 400 gal per acre)	4	4 days
Peanuts	Do not make more than 6 at Oriental Fruit Moth (Grou	applications per crop. and Application Only).	HOMYL 90SP per acre per crop.	
reanuts	Corn Earworm* Potato Leafhopper Fall Armyworm	1/4 - 1	21	48 hrs
	Beet Armyworm	3/8 - 1	MYL 90SP per acre per crop.	
	Green Cloverworm Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Granulate Cutworm	1/2 - 1		
	Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 8 applications per crop.  *ROTAM METHOMYL 90SP has ovicidal and larvicidal control on com earworm.  **Soybean Looper is difficult to control.  Do not apply to worms greater than 1 per 2" long. Use higher rate for severe infestations.  Do not feed treated vines.			

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI	
Pears Northeast only	Green Fruitworm Oblique banded Leafroller	1/2 - 1 *	7	48 hrs	
	Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 2 applications per crop.  * Apply in a minimum of 50 gallons of water per acre.				
Peas (succulent) Including: Pigeon peas Chick peas Garbanzo beans Dwarf peas Garden peas Green peas English Peas Field peas Edible pod peas	Alfalfa Looper Cabbage Looper* Pea Aphid Beet Armyworm Saltmarsh Caterpillar Variegated Cutworm	1/2 - 1	1 - Peas 5 - Forage 14 - Hay	48 hrs	
	Alfalfa Caterpillar Armyworm Green Cloverworm	. 1/4 - 1			
	Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 6 applications per crop; minimum interval between treatments is 3 days.  * Do not use for Cabbage Loopers in AL & GA.				
Pecans	Aphids	1/2 - 1	30	48 hrs	
Southeast only		7 pounds of ROTAM METH 7 applications per crop.	HOMYL 90SP/acre/crop.		
Peppers Including: Bell Hot Pimentos Sweet	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1/2 - 1	3	48 hrs	
	Variegated Cutworm	1/4 - 1/2			
	European Corn Borer	1			
	Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 10 applications per crop.				
	Omnivorous Leafroller	1	14	48 hrs	
Pomegranates		of apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop.  of make more than 2 applications per crop.			
Potato	Tuberworm* Loopers Aphids Beet Armyworm Leafhoppers Fall Armyworm	1/2 - 1	6	48 hrs	
	Variegated Cutworm Flea Beetles	1/2			
		5 pounds of ROTAM METH 10 applications per crop.	HOMYL 90SP per acre per crop.		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Potato (cont.)	Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section.  *Repeat applications of ROTAM METHOMYL 90SP on a 5-7 day schedule, or longer as needed, to control tuber worm populations. An application schedule of effective insecticides with different modes of action may be needed to keep foliar feeding larval populations as low as possible prior to harvest to reduce the risk of larval damage to the tubers. Failure to adequately control tuberworm larvae prior to crop senescence or vine kill increases the risk of tuber damage.			
Rye	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop.  Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: ROTAM METHOMYL 90SP can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.  **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			1,000
Sorghum	Sorghum Webworm	1/2 *	14 **	48 hrs
Including: Sudangrass (Except Sweet Sorghum)	Sorghum MidgeApply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Corn Earworm Armyworm	1/4 - 1/2 *		
	Do not make more than 2 at Minimum of 10 gallons pe	cound of ROTAM METHOMYL 90S applications per crop. er acre by ground or 2 gallons per a days of feeding forage or cutting for	cre by air.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Soybeans	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Corn Earworm Light to Moderate infestations	1/8 - 1/4 (see Insect Predator section)	14 - Soybeans 3 - Forage 12 - Hay	48 hrs
	Moderate to severe infestations	1/4 - 1/2		
	Soybean Aphid	1/6 - 1/3		
	Beet Armyworm Salt Marsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper Light to Moderate infestations	1/4 - 3/8		
	Moderate to severe infestations	3/8 - 1/2		
	Do not apply more than 1 make more than 3 applica		DMYL 0SP per acre per crop. Do not	
Spinach	Alfalfa Loopers Cabbage Looper Beet Armyworm Fall Armyworm	1/2 - 1	7	48 hrs
	Variegated Cutworm	1/2		
	Do not apply when minimum daily temperature is 32° F, or lower.  Do not apply to seedlings less than 3" diameter.  Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 8 applications per crop.			
	Do not apply to seedlings Do not apply more than 4	less than 3" diameter. pounds of ROTAM METHON		
Sugar Beet	Do not apply to seedlings Do not apply more than 4	less than 3" diameter. pounds of ROTAM METHON		48 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI	
Sugar Beet (cont.)	Do not make more than 10 a *Chemigation: ROTAM MET chemigation to control beet best results, use the highest	n 5 pounds of ROTAM METHOMYL 90SP per acre per crop.			
Summer Squash* Including: Crookneck squash Straightneck squash Scallop squash Vegetable marrow Spaghetti squash Hyotan	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1/2 - 1	1/2 lb 1 day over 1/2 lb 3 days	48 hrs	
Cucuzza Hechima Chinese okra Bitter melon Balsam pear	Do not make more than 12 a *Fruit of the Gourd (Cucurbi	t accae) family that are consumed	when immature, 100% of the		
Balsam apple Chinese Cucumber		once picked cannot be stored, ha re harvested they would not germi			
Chinese				72 hrs	
Chinese Cucumber  Tangelo, Tangerine CA, AZ & HI	Thrips Western Tussock Moth Orange Tortrix, Beet Armyworm	1/2 - 1  Dunds of ROTAM METHOMYL 903	nate.	72 hrs	
Chinese Cucumber  Tangelo, Tangerine CA, AZ & HI	Thrips Western Tussock Moth Orange Tortrix, Beet Armyworm Do not apply more than 3 po	1/2 - 1  Dunds of ROTAM METHOMYL 903	nate.	72 hrs	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Tomato (Including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/2		
Turf (For use on sod	Do not make more than 16 * For tomatillos do not apply per crop . Do not make more than 5 a  Sod Webworm	applications per crop. y more than 5 pounds of R pplications per crop.	MYL 90SP per acre per crop OTAM METHOMYL 90SP per acre	48 hrs
farms only)	(after application, sprinkle irrigate for 15 minutes)	(2/5 ozs. per 1000 sq. ft.)		
	Do not apply more than 4 p Do not make more than 4 a Do not graze or feed.		MYL 90SP per acre per crop.	
	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
Wheat	Do not make more than 4 a Chemigation: ROTAM MET chemigation. For best resul Apply in 0.1 to 0.2 inches of information.  *Cereal leaf beetle: ROTAM cereal leaf beetle eggs when timed to correspond with the to achieve maximum ovicid in California.  **Aphids: For aphid control, adverse environmental con	pplications per crop. HOMYL 90SP may be applets, use the highest listed ref water per acre. See CHE METHOMYL 90SP can per applied according to labe appearance of newly laid all effect. Use on this pest sucrop must be actively groditions (such as, extreme to	ate of ROTAM METHOMYL 90SP.  MIGATION section for more  provide contact ovicidal effect on el directions. Application should be d eggs or in anticipation of egg hatch stage (egg) is not currently registered wing and not under stress from	

### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**PESTICIDE STORAGE:** Handle this package carefully to prevent breakage of inner bag when stored at low temperatures. Allow to warm above 50 Deg.F for normal handling. Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: For Fiber Drums With Liners: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner. For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam Agrochemical Company Limited or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam Agrochemical Company Limited and Seller harmless for any claims relating to such factors.

Rotam Agrochemical Company Limited warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam Agrochemical Company Limited, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM LTD MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, Rotam Agrochemical Company Limited or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. To the extent consistent with applicable law the exclusive remedy of the user or buyer, and the exclusive liability of rotam agrochemical company limited and seller for any and all claims, losses, injuries or damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use or handling of this product, shall be the return of the purchase price of the product or, at the election of rotam agrochemical company limited or seller, the replacement of the product.

Rotam Agrochemical Company Limited and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam Agrochemical Company Limited.

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826 Registered: [TBA]

# RESTRICTED USE PESTICIDE

# **Due to high Acute Toxicity to Humans**

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient	By Weight
Methomyl	
(S-methyl-N-[(methylcarbamoyl)	
oxy]thioacetimidate)	90%
Other Ingredients	10%
TOTAL	100%

EPA Reg. No. 83100 - 28

Manufactured by:
Rotam Agrochemical Company Ltd.
7/F Cheung Tat Centre
18 Cheung Lee Street
Chai Wan, Hong Kong
1-866-927-6826

EPA Est. No.: 69821-CHN-005

Net Contents:
Packets/Container
TBA

Registered: (TBA)

# KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Refer to inside label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions For Use.

### **FIRST AID**

### (N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. **IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

# ATROPINE IS AN ANTIDOTE -- SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

**POISONING SYMPTOMS** — Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT** — Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact the National Poison Control Center 24-hr Emergency Hotline at: 1-800-222-1222.

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Restricted Use Pesticide due to toxicity categories. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Fatal if swallowed. May be fatal if inhaled or gets in eyes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Do not breathe dust. Remove and wash contaminated clothing before reuse. Avoid contact with clothing. Do not get in eyes. Wear protective eyewear. Wear: Long-sleeved shirt and long pants, socks, chemical-resistant shoes, and chemical-resistant gloves (such as barrier laminate or butyl rubber).

For handling activities, use a non-powered air purifying respirator equipped with an N-, R-, or P- series filter.

### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

#### STORAGE AND DISPOSAL

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PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: For Fiber Drums With Liners: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner. For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

In the event of a major spill, fire or other emergency, call CHEMTREC Day or Night, 1-800-424-9300.

Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Net Contents:
Packets/Container
TBA



# Rotam Methomyl Labels 83100-27 & 83100-28

Frank Sobotka o Thomas Harris

04/04/2011 01:09 PM

I revised the two end use labels per your instructions over the weekend and am sending for your review. See Attached.

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238

PH: 215 497-9501 FX: 215 497-9502

POF

P. C.

083100-0027.20110404.Primary Lbl.pdf 083100-0028.20110404.Primary Lbl.pdf



# detailed review for 83100-EI

Thomas Harris o Frank Sobotka

04/01/2011 02:40 PM

Dr. Sobotka,

Here's the detailed revies for 83100-EI. Some similar formatting changes but not as many text changes as with -ET; this one will be a little faster but do -ET first. Again, copy/paste/edit Storage Disposal from Dupont.



print image (just print)

083100-000EI.20110308.90SP Primary.EPA COMMENTS.print image.pdf



"live" .pdf

083100-000E1.20110308.90SP Primary.EPA COMMENTS.pdf



352-342

edited.000352-00342.20101118. LANN SP D - 1652MSTR 111810.ocr.pdf

Tom Harris EPA/OCSPP/OPP/RD/IRB voice: (703) 308-9423 fax: (703) 308-0029

harris.thomas@epa.gov

visit http://www.epa.gov/pesticides

[Front Container Label - Optional if Booklet is used as front container label]

### RESTRICTED USE PESTICIDE

**Due to High Acute Toxicity to Humans** 

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GROUP 1A INSECTIÇIDE

# Rotam Methomyl 90SP Insecticide

# In Water Soluble Packets

Active ingredient	
Methomyl	
(S-methyl-N-[(methylcarbamoyl oxy]thioacetimidate)	90%
Inert Ingredients	10%
TOTAL	100%

EPA Reg. No. 83100 - TBA

EPA Est. No.: TBA

#### KEEP OUT OF REACH OF CHILDREN DANGER POISON



#### **PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions for Use on inside booklet.

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

**Net Contents:** Packets/Container

083100-000El.20110308.90SP Primary.EPA COMMENTS.pdf

# Summary of Comments on [Directions for use booklet]

Page: 1

Author: tharri02 Subject: Replacement Text replace with: "Other ingredients"

Date: 4/1/2011 1:15:29 PM

083100-000El.20110308.90SP Primary.EPA COMMENTS.pdf

[Booklet Cover]

**PULL HERE TO OPEN▶** 

### RESTRICTED USE PESTICIDE

**Due to High Acute Toxicity to Humans** 

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading repair or cleaning of application equipment.

GROUP

INSECTICIDE

Rotam Methomyl 90SP Insecticide

In Water Soluble Packets

KEEP OUT OF REACH OF CHILDREN DANGER POISON

move ingredient section from next page to here PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

#### FIRST AID

(N-Methyl Carbamate insecticide)

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouthy to an unconscious person.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment addice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a polson control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

ATROPINE IS AN ANTIDOTE. SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

move poisoning symptoms and note to physician to here at end of first aid

#### Page: 2

Author: thami02 Subject, Callout Date: 4/1/2011 2:22:03 PM move ingredient section from next page to here

Author: tharri02 Subject: Callout Date: 4/1/2011 1:19:57 PM

move poisoning symptoms and note to physician to here at end of first aid

#### [Booklet Cover Continued]

insert

"DANGER skull/crossbones POISON PELIGRO"

### PRECAUTIONARY

HAZARDS TO in red

AND DOMESTIC ANIMALS

move to below First Aid DANGER. FATAL IF SWALLOWED. MAY BE FATAL IF INHALED OR GETS IN EYES. DO NOT BREATHE DUST OR SPRAY MIST.

Do not get in eyes or on clothing. Wear protective eyewear and respirator. Harmful if absorbed through skin. Avoid contact with skin. Wash nands thoroughly with soap and water after handling.

POISONING SYMPTOMS: Methomyl peisening produces effects associated with anticholinesterase activity which may include weakness, blurred vision, readache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section on the ROTAM METHOMYL 90SP label and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

TREATMENT: Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM-METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

move ingredients to previous page

Refer to inside label booklet for additional precautionary information instiding lersonal Protective Equipment (PPE), User Safety Recommendations, ingineering Controls Statements, Environmental Hazards and Directions For

# Water Soluble Powder In Water Soluble Bags

Active Ingredient Methomyl

(S-methyl-N-[(methylcarbamoyl)

oxylthioacetimidate 90%
Inert Ingradients 10%
TOTAL 100%

EPA Reg. No. 83100 - TBA

EPA Est. No.: TBA

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong

Net Contents: Packets/Container Page: 3 Author: tharri02 Subject: Callout Date: 4/1/2011 1:21:14 PM "DANGER skell/crossbones POISON PELIGRO" Author: tharri02 Subject: Text Box Date: 4/1/2011 1:16:27 PM move to below First Aid Author: tharri02 Subject: Cross-Out Date: 4/1/2011 1:32:42 PM DELETE here; goes with PPE Author: tharri02 Subject: Pencil Date: 4/1/2011 1:16:07 PM Author: tharri02 Subject: Text Box Date: 4/1/2011 1:22:39 PM move ingredients to previous page Author: tharri02 Subject: Pencil Date: 4/1/2011 1:21:52 PM Author: tharri02 Subject: Replacement Text Date: 4/1/2011 1:17:00 PM replace with "Other ingredients"

#### [inside Booklet page 2]

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Spray Preparation
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Notice of Warranty

[move table of contents to after Precautionary Statements but before Directions for Use; delete references to first aid and prec. stmts] could list individual crops, if desired]

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Author: tharri02 Subject: Text Box Date: 4/1/2011 1:18:11 PM
[move table of contents to after Precautionary Statements but before Directions for Use; delete references to first aid and prec. s[mts]
could list individual crops, if desired]

### PRECAUTIONARY STATEMENTS (Continued)

#### HAZARDS TO HUMAN AND DOMESTIC ANIMALS DANGER

#### PERSONAL PROTECTIVE EQUIPMENT

#### Applicators and others exposed to the diluted spray solution must wear:

- · Long-sleeved shirt and long pants.
- . Chemical resistant gloves such as barrier laminate or butyl rubber
- · Shoes plus socks.
- · Protective eyewear.

# Mixers, leaders, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- · Long sleeve shirt and long pants.
- · Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- · Socks and chemical resistant footwear.
- · Protective eyewear.
- · Respirator as outlined below
- · Chemical resistant apron.

For exposures in enclosed areas, respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

For exposures outdoors, Dusking filering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIØSH approved respirator with any R, P, or HE prefilter. Dissard clothing or other area bent materials that have been drenched or heavily contaminated with this product is concerned. Do not reuse them. Follow manufacturer's instructions for cleaning/mentaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROL STATEMENTS**

Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

Pilots must not assist in the mixing and loading operations.

#### Page: 5 Author: tharri02 Subject: Cross-Out Date: 4/1/2011 1:23:31 PM don't need signal word here since this is just precautionary section continued Author: tharri02 Subject: Cross-Out Date: 4/1/2011 1:38:18 PM data not support this Author: tharri02 Subject: Replacement Text Date: 4/1/2011 1:39:58 PM INSERT sq reads: Author: tharri02 Subject: Replacement Text Date: 4/1/2011 1:40:39 PM INSERT carriage return so "Discard ..." starts new paragraph.

#### **USER SAFETY RECOMMENDATIONS**

#### **Users Should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- · Wash the outside of gloves before removing.
- . As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical's known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, requently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage-systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

insert Table of contents here at start of DFU, if used

#### DIRECTIONS FOR USE Restricted Use Pesticide

a violation of federal law to use this product in a manner inconsistent with abeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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#### Page: 6

Author: thami02 Subject: Callout Date: 4/1/2011 1:44:02 PM Insert Table of contents here at start of DFU, if used

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted with interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker enter into treated areas during the restricted entry interval (REI). REI Summary: REI grapes — 7 day; REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine — 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

Coveralls

move to

section

chemigation

- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber of nitrile rubber), all >14 mils
   Shoes plus socks.
- · Protective eyewear

Discard etothing or other absorbent materials that have been affenched or beavily contaminated with this product's concentrate. Do not people them. Notify workers of the application to grapes by warning them orally and by posting warning signs at entrances to treated areas:

#### GENERAL INFORMATION

Chemigation: Overhead sprinkler chemigation is allowed for use in alfalfa, barley, oats, onions, potatoes, rye, sugar beets, and wheat. Refer to supplemental, or Special Local Meed (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Do not formulate this product into other End-use products without written permission from Rotam.

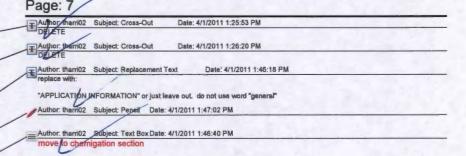
ROTAM METHOMYL 90SP insecticide should be used only in accordance with citions for use on this label or in separate Rotam supplemental labeling, am will not be responsible for use of the product in a manner not specified by am in the product's labeling and User assumes all risk for such use.

ROTAM METHOMYL 90SP is a dry powder to be dissolved in water for application by mechanical ground, overhead sprinkler, or aerial application Handheld equipment is prohibited for application to crops.

Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Pilots must not assist in the mixing and loading operations.

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Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

#### SCOUTING

Monitor insect populations to determine whether or not there is a need for application of ROTAM METHOMYL 90SP based on locally determined economic thresholds. More than one treatment of ROTAM METHOMYL 90SP may be required to central a population of pests.

ok here but better following IPM section

#### **NEFICIAL ANTHROPODS**

TAM METHOMYL 90SP at rates of 1/8 to 1/4 lb. per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

#### RESISTANCE MANAGEMENT

For resistance management, ROTAM METHOMYL 90SP insecticide is a group 1A insecticide. Repeated and exclusive use of ROTAM METHOMYL 90SP or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org.

#### INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating

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Author: tharri02 Subject: Pencil Date: 4/1/2011 1:47:26 PM

Author: tharri02 Subject: Text Box Date: 4/1/2011 1:47:52 PM

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when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying ROTAM METHOMYL 90SP.

Fill spray tank 1/4 to 1/2 full of water. Add ROTAM METHOMYL 90SP directly to spray tank. Carefully open the outer barrier bag containing ROTAM METHOMYL 90SP in a water soluble bag. Do not cut open the outer barrier bag allowing the inner water soluble bag to fall directly into the spray tank. Do not allow packets to become wet prior to adding to the spray tank. Do not handle, open, rip, tear, cut or perforate the inner water soluble bag. Mix thoroughly to fully dissolve the insecticide; once dissolved continued agitation is not required. Use mechanical or hydraulic means; do not use air agitation. Be sure the soluble packet is completely dissolved before adding any other ingredients. Spray mix should not be stored overnight in spray tank.

Compatibility: Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use ROTAM METHOMYL 90SP with Bordeaux mixture (copper sulfate and hydrated lime), Du Ter triphenyltin hydroxide, lime sulfur, Rayplex iron or in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

Tank-mix solutions containing Boron may affect solublility of the water soluble film. When using Boron containing solutions in a tank-mix, follow these procedures:

- Add the correct amount of ROTAM METHOMYL 90SP water soluble packets first
- -Be sure the soluble packets are completely dissolved
- Introduce Boron containing solutions last

If the above procedure cannot be followed, and Boron is an essential part of the spray mix, substitute ROTAM METHOMYL LV formulation for the water soluble packets.

Tank Mix Sequence: Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

- 1. ROTAM METHOMYL 90SP and other products in water soluble bags.
- 2. Water dispersible granules
- 3. Wettable powders
- 4. Water based suspension concentrates
- 5. Water soluble concentrates
- 6. Oil based suspension concentrates
- 7. Emulsifiable concentrates
- 8. Adjuvants, surfactants, oils
- 9. Soluble fertilizers
- 10. Drift ratardants

Follow local practice and manufacturer's recommendation.

#### **APPLICATION**

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of ROTAM METHOMYL 90SP should be applied, as needed, to keep pest populations within threshold limits. On most crops, ROTAM METHOMYL 90SP should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since ROTAM METHOMYL 90SP is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for grapes, peaches, and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.

For certain crops a minimum of 1 gallon per acre may be used providing the following conditions are met:

- -equipment is adjusted to distribute spray uniformly over the spray swath,
- wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area.
- -local regulations do not prohibit low-volume aerial sprays,
- use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa Celery Collards Peas (succulent) Peppermint Peppers Potato Anise Asparagus Barley Com Cotton Rye Soybean Melone Spinach Sugar beet Beans Cucumber Broccoli Lettuce Brussels sprouts Cabbage Oats Summer Squash Carrot Cauliflower Peanuts

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

#### SPRAY TANK CLEANOUT

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation, Dispose of waste rinse water in accordance with local regulations.

#### CHEMIGATION

Instructions for the Use of ROTAM METHOMYL 90SP on Alfalfa, Barley, Oats, Green and Dry Bulb Onions, Potatoes, Rye, Sugar Beets and Wheat

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Author: tharri02 Subject: Cross-Out Date: 4/1/2011 1:26:46 PM

DELETE

Author: tharri02 Subject: Replacement Text Date: 4/1/2011 1:55:40 PM

move melons to middle column

#### **Using Overhead Sprinkler Chemigation**

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of ROTAM METHOMYL 90SP as high as possible in the application. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. ROTAM METHOMYL 90SP is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of ROTAM METHOMYL 90SP should take place when the insects are active and most likely to come into direct contact with the application.

#### Types of Irrigation Systems

ROTAM METHOMYL 90SP may be applied through overhead sprinkler irrigation systems for control of various pests. Center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems; such as end tow, side (wheel) roll and solid set, may be used if they provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 90SP through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

# General Directions for Chemigation

A pesticide tank is recommended for the application of ROTAM METHOMYL 90SP in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 90SP into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 90SP. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7)

#### Injection into Chemigation Systems

Inject the proper amount of the ROTAM METHOMYL 90SP solution to the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing ROTAM METHOMYL 90SP into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing ROTAM METHOMYL 90SP to the irrigation water line, and apply no more than 0.2 inches of water per acre, just before the end of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 90SP must provide for uniform distribution of ROTAM METHOMYL 90SP treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other

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experts if you have questions about achieving uniform distribution of the application.

#### **Equipment Calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 90SP. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

#### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 90SP is in the imigation water.

#### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### Posting of Areas to be Treated

Posting of areas to be chemigated is required when 1) any part of a treated area

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is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, In-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until follage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

#### Cleaning the System

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consuit your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid offtarget drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to

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applications using dry formulations.

- The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information

#### AERIAL DRIFT REDUCTION ADVISORY INFORMATION Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDEX UNFAVORABLE ENVIRONMENTAL CONDITIONS! See WIND, TEMPERATURE AND HUMIDITY, and TEMPERATURE INVERSIONS sections of this label.

#### Controlling Droplet Size - General Techniques

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### Controlling Droplet Size - Aircraft

- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel
  to the airstream produces larger droplets than other orientations and is the
  recommended practice. Significant deflection from horizontal will reduce droplet
  size and increase drift potential.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
  - Boom Length For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
  - Application Height Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
  - Swath Adjustment When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downward edges

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of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

#### **BOOM HEIGHT**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. AVOID GUSTY OR WINDLESS CONDITIONS.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### **TEMPERATURE AND HUMIDITY**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

# AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can

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result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured property, and that drift is not

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

# AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- · Adjust deflectors and aiming devices so that spray is only directed into the
- · Block off upward pointed nozzles when there is no overhanging
- . Use only enough air volume to penetrate the canopy and provide good
- coverage.

  Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.

### CROP AND RATE CHARTS

Crops	Insecta	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid Lygus Bugs Blotch Learminer Aphids Egyptian Alfalfa Weevil Lervae Loopers Beet Armyworm Armyworm Armyworm Affalfa Caterpillar Fall Armyworm Western Yellowatriped Armyworm Yellowatriped Armyworm	1/2 – 1	7*	48 hrs
	Alfalfa Weevil Larvae	1		
	Variegated Cutworm	1/4 - 1		
	Do not apply more than a Do not make more than Chemigation: ROTAM ME For best results, use the hi inches of water per acre.	4 pounds of ROTAM METI 10 applications per crop. THOMYL 90SP may be ap		
Anise (Fennel)	Cabbage Looper	1	7	48 hra
	Beet Armyworm	1/2 - 1	,	40 1118
	Do not apply more than ! Do not make more than !		HOMYL 90SP per acre per crop.	
Apple (Ground application only)	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug	1/2 - 1 *	14	72 hrs
	Codling Moth (10-12 day spray intervals)			
	Leafrollers (Fruit-tree, Obliquebanded, Redbanded, Variegated) Leaser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	1*		The State of
	Do not apply more than !		HOMYL 90SP per acre per crop. inimum interval between treatments	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	RE
Asparagus	Beet Armyworm, Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm	1/2 - 1		48 hrs
	Variegated Cutworm	1/2		
	Do not apply more than Do not make more than		HOMYL 90SP per acre per crop.	
Avocado	Western Avocado Leafroller Omnivorous Looper	1/2 - 1	1	48 hrs
	Do not apply more than Do not make more than		HOMYL 90SP per acre per crop.	
Barley	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hr
	chemigation. For best re Apply in 0.1 to 0.2 inche information "Cereal leaf beetle: ROI cereal leaf beetle eggs be timed to correspond hatch to achieve maxim registered in California. "Aphids: For aphid con' adverse environmental i	suits, use the highest liste s of water per acre. See C FAM METHOMYL 90SP ca when applied according to with the appearance of ne- um ovicidal effect. Use on trol, crop must be actively conditions (such as, exten)	applied by overhead sprinkler id rate of ROTAM METHOMYL 90SP. HEMIGATION section for more an provide contact ovicidal effect on label directions. Application should why laid eggs or in anticipation of egg this pest stage (egg) is not currently growing and not under stress from ne temperatures or drought).  In when aphid population is low (<10	
Beans (Succulent) Including:		1/4 - 1	Succulent Beans 1/4 - 1/2 lb 1,	48 hr
Kidney, Lima, Mung, Navy, Pinto, Snap, Wax, Broad, Fave, Asparagus, Blackeyed paas Cowpeas, Chick peas,	Leafhopper Mexican Bean Beetle		over 1/2 lb. – 3; 3 Vines 7 Hay	
Garbanzo beans, Sweet lupine, White sweet lupine White lupine.	Fall Armyworm Variegated Cutworm	1/2		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Grain lupine	Com Earworm Saltmarsh Caterpillar, Yellowstriped Armyworm Western Yellowatriped Armyworm, Lygua Bugs Thrips Aphilds Loopera* European Com Borer	1/2 – 1		
	(Ovicide & Larvicide)— Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals to control eggs and Spotted Cucumber Beetle	1/4 – 1/2		
	Succulent Beans -	10 applications per crop.	HOMYL 90SP per acre per crop.	
Beans (Dry) (Follow Beans, Succulent)	(Follow Beans, Succulent)	(Follow Beans, Succulent)	14 - Dry Beans ° 14 - Vines ° 14 - Hay °	48 hrs
	Do not apply more than 5 Do not make more than 5 Do not use for Loopers in *Do not apply within 14 d	10 applications per crop. 1 AL & GA.	HOMYL 90SP per acre per crop.	
Beets (Table)	Imported Cabbageworm	1/4 - 1	0 - roots 10-tops	48 hrs
	Beet Armyworm Cabbage Looper Diamondback Moth	1/2 - 1		
	Cucumber Beetle Variegated Cutworm	1/2		
	Do not apply more than 4 p Do not make more than 8		MYL 90SP per acre per crop.	
Bermudagrass pasture	Fall Armyworm Armyworm Striped Grass Looper	1/4 - 1	7 - Forage * 3 - Dehydrated Hay **	48 hrs
	Do not make more than 4	applications per crop. s of feeding forage or allow	HOMYL 90SP per acre per crop.	
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	1/2	3	48 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs, Per Acre	Last Application -Days To Harvest	REI
	Cranberry Fruitworm* Cherry Fruitworm*	1/2 - 1		
	Flea Beetle (larvae) Sawily (larvae) Blueberry Leafroller	1		
	Blueberry Maggot	1/4 - 1/2		
	Do not apply during blo Do not apply more than 4 Do not make more than " For ground use only.	pounds of ROTAM METHOM	IYL 90SP per acre per crop.	
Broccoli	Loopers, Diamondback Moth	1/2 - 1 **	3	48 hrs
	Imported Cabbageworm	1/4 - 1 **		
		10 applications per crop; m	HOMYL 90SP per acre per crop ninimum interval between treatments	
Brussels Sprouts	Loopers Imported Cabbageworm, Diamondback Moth	1/2 - 1 **	3	48 hrs
	Variegated Cutworm	1/2 **		
		0 applications per crop; minimu	HOMYL 90SP per acre per crop, um interval between treatments is 2 days.	
Cabbage	Loopers * Diamondback Moth Fall Armyworm	1/2 - 1 **	1	48 hrs
	Imported Cabbageworm	1/4 - 1 **		1
	Maria and ad Cubuman	1/2 **		
	Variegated Cutworm			
	Do not apply more than	8 pounds of ROTAM METH 5 applications per crop; minim. s in AL & GA.	HOMYL 90SP per acre per crop, um interval between treatments is 2 days.	
Carrot	Do not apply more than Do not make more than 1: * Do not use for Looper	8 pounds of ROTAM METH 5 applications per crop; minim. s in AL & GA.		48 hrs
Cerrot .	Do not apply more than Do not make more than 1: " Do not use for Looper "Add a wetting agent to Beet Armyworm Armyworms	8 pounds of ROTAM METH 5 applications per crop; minim. 8 in AL & GA. to improve coverage	um interval between treatments is 2 days.	48 hra
Carrot .	Do not apply more than Do not make more than? **Do not use for Loope ***Add a wetting agent to Beet Armyworm Armyworms Arter Leafhopper Variegated Cutworm Do not apply more than	8 pounds of ROTAM METI- 5 applications per crop; minims as in AL & SA. to improve coverage 1/2 - 1	um interval between treatments is 2 days.	48 hrs
Carrot	Do not apply more than Do not make more than? **Do not use for Loope ***Add a wetting agent to Beet Armyworm Armyworms Arter Leafhopper Variegated Cutworm Do not apply more than	8 pounds of ROTAM METI- 5 applications per crop; minims a in AL & GA. to improve coverage 1/2 - 1 1/4 - 1/2 7 pounds of ROTAM METI- 10 applications per crop. 1/4 - 1 °°	um interval between treatments is 2 days.	48 hrs
	Do not apply more than Do not make more than? **Do not use for Looper **Add a wetting agent to Best Armyworm Armyworms Aster Leafhopper Variegated Cutworm Do not apply more than Do not make more than Imported Cabbageworm Loopers Diamondback Moth	8 pounds of ROTAM METI- 5 applications per crop; minims a in AL & 6A. to improve coverage  1/2 - 1  1/4 - 1/2  7 pounds of ROTAM METI- 10 applications per crop.  1/4 - 1 °°  1/2 - 1 **	um interval between treatments is 2 days.  1  HOMYL 90SP per acre per crop.	
	Do not apply more than Do not make more than 1:  "Do not use for Looper Add a wetting agent to Beet Armyworms Armyworms Armyworms Aster Leafhopper Variegated Cutworm Do not apply more than Do not make more than Imported Cabbageworm Loopers Diamondback Moth Variegated Cutworm	8 pounds of ROTAM METHS applications per crop; minims ain AL & Act to improve coverage  1/2 - 1  1/4 - 1/2  7 pounds of ROTAM METH 10 applications per crop.  1/4 - 1 **  1/2 **	um interval between treatments is 2 days.  1  HOMYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Celery	Beet Armyworm Aster Leafhopper	1/2 - 1	7	48 hrs
	Loopers	1		
	Variegated Cutworm	1/2		
	Armyworms	1/4 - 1		
	Do not apply more than Do not make more than		METHOMYL 90SP per acre per crop, op.	
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1/2 - 1	80	48 hrs
	Do not apply more than : Do not make more than :		METHOMYL 90SP per acre per crop. p.	
Chinese Cabbage	Loopers Beet Armyworm	1/2 - 1*	10	48 hrs
	Do not apply more than Do not make more than	10 applications/crop.	METHOMYL 90SP/acre/crop. und or 5 gallens by air.	
Collards (Fresh market	Diamondback Moth Variegated Cutworm	1/2	10	48 hrs
only)	Imported Cabbageworm Beet Armyworm Loopers*	1/2 - 1		
	Do not apply when temp Do not apply when crop Do not apply more than Do not make more than Do not use for Loopers	is less than 10" tall. 6 pounds of ROTAM I 8 applications per cro	METHOMYL 90SP per acre per crop.	
Com (Field, Popcom & Seed)	Earworm (Ovicide/Larvicide) Armyworm Fall Armyworm European Corn Borer- Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphilds	1/4 - 1/2	21- Ears 3 - Forage* 21 - Stover*	48 hrs
-	Variegated Cutworm, Beet Armyworm	1/2		
	Do not make more than *Corn forage is green ac then plants can be fed di	10 applications per creatively growing plants to irectly to animals or usuals after removal of the company of t	that are harvested with the ears intact, sed to make slage. Com stover are the the grain at full plant maturity. These	
Corn (Sweet)	Earworm-Whorl as needed	1/3 - 1/2		48 hrs
	Fall Armyworm Armyworm Earworm,- (Ovicide/Larvicide)	1/4 - 1/2	0 - Ears 3 - Forage 21- Stover	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
	European Com Borer- Ears 1-3 days or as needed Com Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids			
	Variegated Cutworm Beet Armyworm	1/2		
	area to determine crop Do not apply more than	safety before full scale spra 7 pounds of ROTAM METI	ble to methomyl injury. Treat a small sying. HOMYL 90SP per acre per crop. ninimum interval between treatments	
Cotton All U.S.	Ovicide/Larvicide - Bollworm, Tobacco Budworm (Initiate schedule when significant numbers of eggs are present Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) start treatment on low level population for suppression.	1/8 - 1/4 (see Insect Predator Section)	15	72 hrs
	Cotton Leafworm Cotton Fleahopper (as needed)	1/4 - 1/2 1/8 - 1/4		
	Aphids, Thrips	1/4		
East of Rockies Only	(Early Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adults and nymphs) Use as occasional spray in regular schedule but not more often than every 10 days.	1/2		
ast of Rockies	(Late Season)	1/2 - 3/4	15	72 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
only	Bollworm, Tobacco Budworm, Born, Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Buga/Plant  Buga (adult and nymphs). Up to 3 applications at 3-5 day intervals after desired boil load set on plants.			
Texas	Cotton Aphid	1/4 - 2/3		
West of Rockies only	Larvicide for worms Bollworm, Fall Armyworm, Tobacco Budworm, Lygus Bugs Beet Armyworm	1/2 - 3/4		ŀ.
	Cotton Leafperforator	1/3 - 3/4		
	For all cotton applicat	1005		
	Do not apply more than Do not make more than		HOMYL 90SP per acre per crop.	
Cucumber	Do not apply more than Do not make more than Use may redden cotton.	2 pounds of ROTAM METI 8 applications per crop .		48 hm
Cucumber	Do not apply more than Do not make more than Use may redden cotton Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickdeworm Fall Armyworm Variegated Cutworm	2 pounds of ROTAM METI 8 applications per crop . If excessive stop or alterni 1/2 - 1	ate with other insecticides.  1/2 lb 1  Over 1/2 lb 3	48 hr
Cucumber	Do not apply more than Do not make more than Use may redden cotton Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Melon Aphid Melonworm Pickdeworm Fall Armyworm Variegated Cutworm Do not apply more than	2 pounds of ROTAM METI 8 applications per crop . If excessive stop or alterni 1/2 - 1  1/2 8 pounds of ROTAM METI	ate with other insecticides.	48 hr
Cucumber	Do not apply more than Do not make more than Use may redden cotton Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flas Beetles Cucumber Beetles Melon Aphid Melonworm Pickdeworm Fall Armyworm Variegated Cutworm Do not apply more than Do not make more than	2 pounds of ROTAM METI 8 applications per crop . If excessive stop or alterni 1/2 - 1  1/2 - 6 pounds of ROTAM METI 12 applications per crop.	1/2 lb. – 1 Over 1/2 lb. – 3  HOMYL 90SP per ecre per crop.	
Cucumber  Eggplant	Do not apply more than Do not make more than Use may redden cotton Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Melon Aphid Melonworm Pickdeworm Fall Armyworm Variegated Cutworm Do not apply more than	2 pounds of ROTAM METI 8 applications per crop . If excessive stop or alterni 1/2 - 1  1/2 8 pounds of ROTAM METI	ate with other insecticides.  1/2 lb 1  Over 1/2 lb 3	
	Do not apply more than Do not make more than Use may redden cotton Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickdeworm Fall Armyworm Variegated Cutworm Do not apply more than Do not Pinworm (Ground Application only) Beet Armyworm Com Earworm Do not apply more Do not apply more Do not prive more than Green Peach Aphid	2 pounds of ROTAM METI 8 applications per crop.  1/2 - 1  1/2 - 1  1/2 8 pounds of ROTAM METI 12 applications per crop.  1/4 - 1  1/2 - 1	1/2 lb. – 1 Over 1/2 lb. – 3  HOMYL 90SP per ecre per crop.	
Eggplant	Do not apply more than Do not make more than Use may redden cotton Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm Seet Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickdeworm Fall Armyworm Variegated Cutworm Do not apply more than Do not apply more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm Com Earworm Do not apply more than Do not apply more than Do not apply more than	2 pounds of ROTAM METI 8 applications per crop. If excessive stop or alterni  1/2 - 1  1/2 - 1  6 pounds of ROTAM METI 1/2 - 1  1/4 - 1  1/2 - 1	1/2 lb. – 1 Over 1/2 lb. – 3  HOMYL 90SP per ecre per crop.	48 hr
	Do not apply more than Do not make more than Use may redden cotton Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm Com Earworm Do not apply more than Do not apply more than Do not make more than Beet Armyworm Do not make more than Beet Armyworm	2 pounds of ROTAM METI 8 applications per crop.  1/2 - 1  1/2 - 1  1/2 - 6 pounds of ROTAM METI 12 applications per crop.  1/4 - 1  1/2 - 1  5 pounds of ROTAM METI 10 applications per crop.	HOMYL 90SP per scre per crop.	48 hr

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
	Do not make more than	6 applications per crop. to improve coverage.		
Grapefruit CA, AZ & HI only	Thrips Fruittres Leafroller Orange Tortrix Wéstern Tussock Moth Beet Armyworm	1/2 - 1	1	72 hrs
		3 pounds of ROTAM METH 4 applications per crop.	HOMYL 90SP per acre per crop.	
Grapes East of Rockies only	Grape Berry Moth (apply pre & post- bloom & repeat at 10 14 day intervals or as needed) Leafhoppers	1/2_1	1 Fresh & Raisin 14 Wine Grapes	7 days
All U.S.	Omnivereus Leaffoller, Grape Leaffolder Orange-Tortrix			
West of Rockies	Saltmarch Caterpillar Leafhoppers*			
uny	Climbing Cutworm (Treat infestation and repeat at 7-14 day intervals as needed)	4		
CA-only	Grape Loaf Skeletonizer*	1/2-1		
	Thrips	1/2-1		
	De not apply more than De not make more than	ade to grapes in the Unite 5 pounds of ROTAM METI 5 applications per crop. Leaf Skeletenizer (Ground	HOMYL 90SP per acre per crep.	
Horseradish	Aphids Thrips	1/2	65	48 hrs
Ground application only		2 pounds of ROTAM METI	HOMYL 90SP per acre per crop.	

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Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI	
Leafy Green Vegetables: Beet (tops) Dandelions, Kale,	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1/2 - 1	10	48 hrs	
Musterd Greens, Parsley, Swiss Chard, Turnip Greens	Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 8 applications per crop. * Do not use for Cabbage Loopers in AL & GA.				
Lemon CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1/2 - 1		72 hrs	
	Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per ecre per crop.  Do not make more than 4 applications per crop.				
Lentils	Western Yellowstriped Armyworm	1/2 - 1	21	48 hrs	
	Do not apply more than 1 pound of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 2 applications per crop.				
Lettuce	Alfalfa Looper	1/4 - 1	1/4-1/2 lb 7	48 hrs	
(Head and Leaf varieties)	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1/2 - 1	over 1/2 lb 10		
	Variegated Cutworm	1/2			
	Lettuce (head varieties) Do not apply more than 8 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 15 applications per crop; minimum interval between treatments is 2 days. Lettuce (leaf varieties) Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 8 applications per crop; minimum interval between treatments is 2 days.				
Meions Including: Cantaloupe Casaba Santa Claus meion Crenshaw meion Honeydew meion Honey balls Persian meion Golden Pershaw meion Mango meion Pineapple meion Snake meion Watermeion	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Meton Aphid Melonworm Pickleworm Fall Armyworm	1/2 - 1	1/2 lb 1 over 1/2 lb 3	48 hn	
	Variegated Cutworm	1/2			
	Do not apply more than 6 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 12 applications per crop.				

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Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI	
Mint (Peppermint, Spearmint)	Variegated Cutworm Alfalfa Looper	1	14	48 hrs	
	Flea Beetles	3/4 - 1			
	Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop.				
Nectarine	Thrips	1/2 - 1	1	72 hrs	
CA & AZ only	Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per scre per crop. Do not make more than 3 applications per crop.				
Oats	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs	
	Do not make more than 4 applications per crop. Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information. "Cereal leaf beetle: ROTAM METHOMYL 90SP can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California. "Aphilos: For aphilo control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphilo need to begin when aphilo population is low (<10 acults per stem).				
	Beet Armyworm	1/2 - 1 **	7 - Green and	48 hrs	
Onions (Green & Dry Bulb)	Thrips* Variegated Cutworm Black Cutworm	1 **	Dry Bulb Onions		
	Onlons, green  Do not apply more than 8 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 8 applications per crop; minimum interval between treatments is 5 days.  Onlons, dry butb  Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 8 applications per crop; minimum treatment interval between treatments is 5 days.  "Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation to control thrips. Begin applications before thrip populations reach 3-5 thrips per plant. For best results, add a wetting agent. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  "Add a wetting agent to improve coverage.				

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REJ		
Oranges CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruittree Leafroller Beet Armyworn Citrus Cutworn	1/2 - 1	1	72 hrs		
	Do not apply more than 3 Do not make more than 4		MYL 90SP per acre per crop.			
Peaches	Catfacing Insects (Plant Bugs and Stink Bugs) - begin at petal fall and continue in cover sprays at 7-to 10-day intervals Oriental Fruit Moth* -begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and atternate with residual-type insecticides registered for this use. Green Peach Aphid	(or 1/4 lb per 100 gal up to 400 gal per acre)		4 days		
	Do not apply more than 6 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 6 applications per crop. **Oriental Fruit Moth (Ground Application Only).					
Peanuts	Com Earworm* Potato Leafhopper Fall Armyworm	1/4 - 1	21	48 hrs		
	Beet Armyworm	3/8 - 1				
	Green Cloverworm Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Grenulate Cutworm	1/2 - 1				
	Do not make more than 8 * ROTAM METHOMYL 90 **Soybean Looper is diffic	applications per crop. SP has ovicidal and larvicidal ult to control. ater than 1 per 2" long, Use	MYL 90SP per acre per crop. dal control on com earworm. e higher rate for severe infestations.			

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI			
Pears Northeast only	Green Fruitworm Oblique banded Leafroller	1/2 - 1 * 7		48 hrs			
	Do not make more than	Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per scre per crop. Do not make more than 2 applications per crop.  *Apply in a minimum of 50 gallions of water per acre.					
Peas (succulent) Including: Pigeon peas Chick peas Garbanzo beans Dwarf peas	Alfaifa Looper Cabbage Looper* Pea Aphid Beet Armyworm Saltmarsh Caterpillar Variegated Cutworm	1/2 - 1	1 - Peas 5 - Forage 14 - Hay	48 hm			
Garden peas Green peas English Peas	Alfalfa Caterpillar Armyworm Green Cloverworm	1/4 - 1					
Field peas Edible pod peas	Do not make more than days.	Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 6 applications per crop; minimum interval between treatments is 3					
Pecans	Aphids	1/2 - 1	30	48 hr			
Southeast only	Do not apply more than 7 pounds of ROTAM METHOMYL 90SP/acre/crop.  Do not make more than 7 applications per crop.						
Peppers Including: Bell Hot Pimentos	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1/2 - 1	3	48 hr			
Sweet	Variegated Cutworm	1/4 - 1/2		1			
	European Com Borer	1					
	Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 10 applications per crop.						
	Omnivorous Leafroller	1	14	48 hr			
Pomegranates	Do not apply more than Do not make more than		HOMYL 90SP per acre per crop.				
Potato	Tuberworm* Loopers Aphids Beet Armyworm Leaftoppers Fall Armyworm	1/2 - 1	6	48 hr			
	Variegated Cutworm Flea Beetles	1/2					
		5 pounds of ROTAM MET 10 applications per crop.	HOMYL 90SP per acre per crop.				

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI		
Potato (cont.)	chemigation. For best resi Apply in 0.1 to 0.2 inches "Repeat applications of Rineeded, to control tuber winsecticides with different populations as low as pos	ITHOMYL 90SP may be applied by ultra, use the highest listed rate of RC of water per acre. See CHEMIGAT! OTAM METHOMYL 90SP on a 5-7 to mm populations. An application sch modes of action may be needed to it sible prior to harvest to reduce the riety control tuberworm larvae prior to damage.	OTAM METHOMYL 90SP. ON section. day schedule, or longer as edule of effective reedule larval isk of larval damage to the			
Rye	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7			
	make more than 4 applica Chemigation: ROTAM thermigation: For best resi Apply in 0,1 to 0,2 inches information. "Cereal leaf beetle: ROTA careal leaf beetle: ROTA careal leaf beetle: ROTA careal leaf beetle eggs with to achieve maximum ovic registered in California. "Aphids: For aphid contr adverse environmental co	pounds of ROTAM METHOMYL 90: titons per crop. ETHOMYL 90SP may be applied by uits, use the highest listed rate of Ro of water per acro. See CHEMIGATI M. METHOMYL 90SP can provide cien applied according to label direct he appearance of newly faid eggs or dal effect. Use on this pest stage (e) ol, crop must be actively growing and inditions (such as, extreme temperal wheat aphid need to begin when aphilians of the control of the c	overhead sprinkler DTAM METHOMYL 90SP. ON section for more contact ovicidal effect on ons. Application should be in anticipation of egg hatch gg) is not currently in not under stress from tures or drought).			
Sorghum	Sorghum Webworm	1/2 *	14 **	48 hrs		
Including: Sudangrass (Except Sweet Sorghum)	Sorghum Midge  —Apply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Com Earworm Armyworm	1/4 - 1/2 *				
	Do not make more than 2 * Minimum of 10 gallons p	pound of ROTAM METHOMYL 90S applications per crop. ser acre by ground or 2 gellions per a days of feeding forage or cutting for	cre by air.			

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI	
Soybeans	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Com Earworm Light to Moderate infestations	Velvetbean Caterpillar section) 12 - Hay Mexican Bean Beetle Com Earworm Light to Moderate			
	Moderate to severe infestations	1/4 - 1/2			
	Soybean Aphid	1/6 - 1/3			
	Beet Armyworm Salt Marsh Caterpiller Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper Light to Moderate infestations	1/4 - 3/8			
	Moderate to severe infestations	3/8 - 1/2			
	Do not apply more than 1 make more than 3 applica		DMYL OSP per acre per crop. Do not		
Spinach	Alfalfa Loopers Cabbage Looper Beet Armyworm Fall Armyworm	1/2 - 1	7	48 hrs	
	Variegated Cutworm	1/2			
				-	
	Do not apply to seedlings	pounds of ROTAM METHON			
Sugar Beet	Do not apply to seedlings Do not apply more than 4	less than 3" diameter, pounds of ROTAM METHON		48 hrs	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI	
Sugar Beet (cont.)	Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 10 applications per crop. "Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation to control beet armyworm, applied and western yellowstriped armyworm. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.				
Summer Squash* Including: Crookneck squash Straighineck squash Scallop squash Vegetable marrow Spaghetti squash Hyotan Cucuzza Hechima Chinese okra Bitter melon Balsam pear Balsam apple Chinese Cucumber	Fall Armyworm  Do not apply more than 6 pp Do not make more than 12 : "Fruit of the Gourd (Cucurb) fruit is edible cooked or raw	ounds of ROTAM METHOMYL 90: applications per crop. t acces) family that are consumed once picked cannot be stored, ha re harvested they would not germi	when immature, 100% of the	48 hrs	
	Thrips Western Tussock Moth	1/2 - 1	1	72 hrs	
Tangelo, Tangerine CA, AZ & HI only	Orange Tortrix, Beet Armyworm				
Tangerine CA, AZ & HI	Orange Tortrix, Beet Armyworm	ounds of ROTAM METHOMYL 900 pplications per crop.	SP per acre per crop.		
Tangerine CA, AZ & HI	Orange Tortrix, Beet Armyworm  Do not apply more than 3 po		SP per acre per crop.  5 - Flue cured 14 - Air or fire cured	48 hrs	
Tangerine CA, AZ & HI only	Orange Tortrix, Beet Armyworm  Do not apply more than 3 por not make more than 4 a  Fice Beetle	pplications per crop.	5 - Flue cured	48 hrs	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI			
Tomato (Including Tomatillos*)	Tomato Fruitworm Aphids Hormworm Loopere Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1/2 - 1	1/2-1				
	Variegated Cutworm	/ariegated Cutworm 1/2					
	Do not apply more than 7 pounds of ROTAM METHOMYL 90SP per acre per crop Do not make more than 16 applications per crop.  *For tomatilies do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 5 applications per crop.						
Turf (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	1 (2/5 ozs, per 1000 sq. ft.)		48 hrs			
	Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop. Do not graze or feed.						
	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs			
Wheat							

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage: Store in a tightly closed container in a cool, dry place.

Prohibitions: Do not reuse empty container.

Pesticide Disposal: Pesticide spray mixture or rinsate that cannot be used or chemically reprocessed chould be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for quidance.

Container Disposal: For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of emoke.

SPILLS: For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

In the event of a major spill, fire or other emergency, call CHEMTREC, day or night, 1-800-424-9300.

Page: 33

Author: tharri02 Subject: Replacement Text
Date: 4/1/2011 2:16:02 PM
DELETE
rewrite using 352-342 and PR Notice as models

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam Agrochemical Company Limited or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam Agrochemical Company Limited and Seller harmless for any claims relating to such factors.

Rotam Agrochemical Company Limited warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the Inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam Agrochemical Company Limited, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM LTD MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, Rotam Agrochemical Company Limited or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. To THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM AGROCHEMICAL COMPANY LIMITED AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM AGROCHEMICAL COMPANY LIMITED OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Rotam Agrochemical Company Limited and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam Agrochemical Company Limited.

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826 Registered: [TBA]

[Back Page of Booldet - remains on the container when booldet is removed]

#### RESTRICTED USE PESTICIDE

Due to high Acute Toxicity to Humans
For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP

1A INSECTICIDE

### Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active ingredient Methomyl (S-methyl-N-[(methylcarbamoyl)		
oxylthioacetimidate)	90%	
Inert Ingredients	10%	
TOTAL	100%	

EPA Reg. No. 83100 - TBA

EPA Est. No.: TBA

#### KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions For Use on inside booklet.

Page: 35

Author: tharri02 Subject: Replacement Text replace with "Other

Date: 4/1/2011 2:16:26 PM

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#### FIRST AID

#### (N-Methyl Carbamate insecticide)

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continued rinsing eye. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, cell 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth it possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

ATROPINE IS AN ANTIDOTE SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

Have the product container or label with you when calling a polson control center or doctor, or going for treatment.

move poisoning

and dr to below

first aid

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. FATAL IF SWALLOWED. MAY BE FATAL IF INHALED OR GETS IN EYES. DO NOT BREATHE DUST OR SPRAY MIST. Do not get in eyes or on clothing. Wear protective eyewear and respirator. Harmful if absorbed through skin. Avoid contact with skin. Wash hands thoroughly with soap and water after handling.

POISONING SYMPTOMS: Methomyl polsoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Ald section on the ROTAM METHOMYL 90SP label and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

TREATMENT: Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and

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#### Page: 36

Author: tharri02 Subject: Pencil Date: 4/1/2011 2:19:37 PM

Author: tharri02 Subject: Text Box Date: 4/1/2011 2:19:10 PM

organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Storage: Store in a tightly closed container in a cool, dry place.

Prohibitions: Do not rouse empty container.

Pasticide Disposal: Posticide spray mixture or rineate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for posticides Improper disposal of excess posticide spray mixture or rineate is a violation of Federal law. If these wastes cannot be disposed of by the use

according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: For Water Soluble Packets: Do not revise the outer bex or the rescalable plastic bag. When all water soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incideration, or if allowed by state and local authorities, by open burning. If burned, stay out of make. If the rescalable plastic bag contacts the formulated product in any way, the bag must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer yrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of spheke.

SPILLS: For minor spills, leaks, stc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contagination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call CHEMTREC, day or night, 1-800-424-9300.

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#### Page: 37

Author: tharri02 Subject: Replacement Text rewrite using 352-242 and PR Notice as models

Date: 4/1/2011 2:20:29 PM

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Registered:

Net Contents: Packets/Container



### reviews so far for methomyl products

Thomas Harris o Frank Sobotka

03/24/2011 12:20 PM

Dr. Sobotka,

Here are the reviews so far for the pending methomyl products listed below. The product chemistry for the two end-use products are still in process.

>>> ACTION ITEMS:

81598-O

LABEL - Change % a.i., inert to other, change % other.

83100-ET

LABEL - revise signal word, methanol text, Precautionary text intro, PPE

83100-EI

LABEL - should be ok but check against acute tox review to be sure

TECHNICAL 81598-O

POF

81598-0.product chemistry.20110228. no CBI .pdf

PDF.

81598-00009.acute tox review.20110223.pdf

29LV 83100-ET

PDF

83100-00027.acute tox review.20110228.pdf

90SP 83100-EI

FOF

83100-00028.acute tox review.20110310.pdf

Tom Harris EPA/OCSPP/OPP/RD/IRB voice: (703) 308-9423

fax: (703) 308-0029 harris.thomas@epa.gov

visit http://www.epa.gov/pesticides



RE: need 83100-ET color info

Frank Sobotka o Thomas Harris

03/16/2011 01:20 PM

History:

This message has been replied to.

See attached revised CSF for 83100-ET and 83100-EI (page 1&2). Both CSF's have been corrected to , , ,

> Rock/DC/USEPA/US]

CB1 removed

> 83100-EI Alt Methomyl 90SP CSF p1&2 rev 03\_16\_11.pdf 83100-ET Alt Methomyl 29LV CSF rev 03\_16\_11.pdf

see CSF folder

83100- ET Reused Pcham

# Memorandum

Date: 3/21/11

To: PM 7, Regulatory Manager

From: Information Services Branch, ITRMD

Your receipt of this data submission is not an indication that MRIDs for the enclosed studies have been posted to OPPIN.

We expect that it will be approximately 5 days from the above date before the study-level data is available in OPPIN.

If you have any questions about this process, please contact Teresa Downs (305-5363).

This is a: **fully accepted submission** 

partially accepted submission

☐ rejected submission



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

March 15, 2011

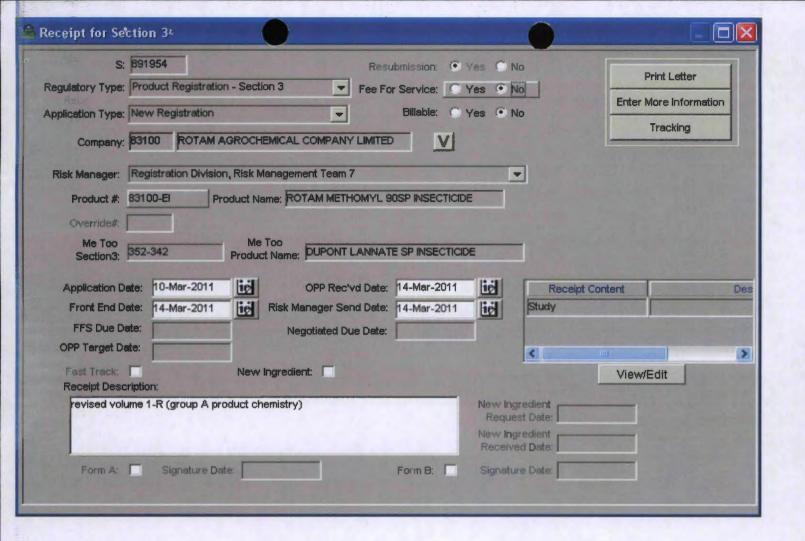
OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

FRANK E. SOBOTKA, PH.D.
IPM RESOURCES LLC
ROTAM AGROCHEMICAL COMPANY LIMITED
7/F CHEUNG TAT CENTRE
4032 CROCKERS LAKE BLVD., STE 818
SARASOTA, FL 43238-

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your submittal of 14-MAR-11. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.



# IPM Resources LLC

4032 Crockers Lake Blvd., Suite 818, Sarasota, FL 34238 Phone: (215) 497-9501 Fax: (215) 497-9502

484168-00

....

"an intellectual property management resource company"

March 10, 2010

#### VIA UPS EXPRESS NDA

Harris.Tom@epa.gov
[REF. **2** 1 -703-308-9423]

Document Processing Desk
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501
ATTN: John Hebert PM 7/Tom Harris

SUBJECT:

Application for Registration - Rotam Methomyl 90SP Insecticide Submission of Revised Volume 1-R (Group A Product Chemistry) EPA File Symbol 83100 - EI

Dear Mr. Harris:

The purpose of this letter is to transmit to the Agency on behalf of Rotam Agrochemical Company Limited a Revised Copy of MRID 48226101 (Volume 1-R/Product Chemistry Group A) for the above subject Product Submission in review. Rotam is requesting that a new MRID number be issued for this report, and, the report addended to MRID 48226191 as a Revised Updated Report for the subject product Chemistry data requirements.

This Report adds revisions to the Basic Confidential Statement of Formula requested by Shyam Mathur, Product Chemistry Reviewer, and, a adds a second Confidential Statement of Formula (Alternate CSF) with supporting information on the Products Identity and Disclosure of Ingredients, including Manufacturing Process, for an Alternative Formulation containing a colorant. The specified Colorant (inert dye) is a Food Grade Colorant approved for direct application and packaging of food products.

The addition of a colorant incorporates better stewarship of the product by alowing the end-user to identify the presence of the product in the tank when mixing and applying the product.

Rotam trusts that the Agency will give this use special consideration when evaluating the products "significant similarity" in composition with respect to FIFRA Section 3(c)(3)(b)(i). The following documents are enclosed with this submission:

John Hebert, PM 7/Tom Harris EPA Registrations Branch March 10, 2011

SUBJECT: Application for Registration - Rotam Methomyl 90SP Insecticide/Continued Submission of Vol 1-R (REVISED) EPA File Symbol 83100 - EI

Administrative Materials: (MRID No.:						
•	Transmittal Form (EPA Form 8570-1)					

Three copies each of the following:

VOLUME NO.	DESCRIPTION	OPPTS GUIDELINE REF. NO.	MRID NO.	
1-R (REVISED)	Product Identity & Disclosure of Ingredients, Including Manufacturing Process/Rotam Methomyl 90SP Insecticide [Report No.: METHMYL90SP]	Group A 830.1550 830.1600 830.1650	48416801	

We appreciate your assistance with this Application. If you have any questions or need additional information, please do not hesitate to contact us at any time.

Sincerely yours,

Senior Partner

IPM Resources LLC (Agent)

ATT:

United States Environmental Protection Weshington, DC 20460		ection Ag	Agency		1	Registra Amenda Other		OPP Identifier Number
	Appli	cation for	Pestici	de - Sec	tion	1		
Company/Product Number     Rotarn Agrochemical Company Ltd / 83100			2. EPA Product Manager John Hebert/Tom Harris			ris	3. Proposed Classification	
	4. Company/Product (Name) Rotam Methomyl 90SP Insecticide (83100-EI)			PM# 7				
ROTAM Agrochemical Corr C/O IPM Resources LLC (A 4032 Crockers Lake Blvd., Sarasota, FL 34238	gent)		(b)(i), n to: EPA F	ny product Reg. No	is sim	ilar or identi	ical in co	FIFRA Section 3(c)(3) imposition and labeling
		Se	ction -		<u> </u>	Lamato	-	
Explanation: Use edditions: Use edditions: Use edditions: Use edditions: Use edditions: Use Colorant, in additions: Use Colorant, in additions	n below.  onel pege(s) if necessary. (For a volume 1-R (Previously issued on to the Basic CSF. This submit in Nominal concentration of the	d MRID# 482 eport adds an nission also in	26101) Pro n Alternate ncludes an	Confidentia updated Ba	Application be istry G	roup A for Rement of For	nula (CS	F), adding use of a Food
	(1)	Sec	ction - I	II				<del></del>
1. Material This Product W	/iii Be Packaged In:			. 5.7				
Child-Resistant Peckeging  Yes  No  * Certification must be submitted  Unit Packeging  Yes  No. per  Unit Packeging wgt.  No. per  Container  24/12/10 lb hag  24/18/4 /case		er If "Y	Yes No  es" No. per tage wgt container		2. Type of (	Metal Plastic Glass Paper Other (Specify)		
3. Location of Net Contents		(s) Retail Cont	2/5 lbs/bag tainer	1		cation of Lab	el Directio	ons
6. Manner in Which Label in Printed of		Lithograph Paper glued Stenciled		Othe	or			
		Sec	ction - I	V				
1. Contact Point (Complet	e items directly below for identi	fication of ind	lividual to be	e contacted,	if nec	essary, to pro	cess this	application.)
Name Frank E. Sobotka, Ph.	D.	Title Agent	t				Telephon 215 497	e No. (Include Area Code) 7-9501
	Cer	tification						6. Date Application

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingity false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

3. Title

5. Date

Agent

2. Signature

Frank E. Sobotka, Ph.D

March 07, 2011

Received

(Stamped)



### Electronic versions of the labels for 83100-ET, 83100-EI and 81598-O

Frank Sobotka o Thomas Harris

03/09/2011 10:43 AM

See Attached documents per our phone conversation.

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238

PH: 215 497-9501 FX: 215 497-9502







083100-000ET.20110308.29LV Primary.pdf 083100-000EI.20110308.90SP Primary.pdf 081598-0000.20110308.Tech Primary.pdf

### RESTRICTED USE PESTICIDE

Due to High Acute Toxicity to Humans

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP

1A INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

**Active Ingredient** 

Methomyl

TOTAL

(S-methyl-N-[(methylcarbamoyl)

oxylthioacetimidate) 90% 10%

Inert Ingredients

100%

EPA Reg. No. 83100 - TBA

EPA Est. No.: TBA

#### KEEP OUT OF REACH OF CHILDREN DANGER POISON



### **PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions for Use on inside booklet.

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

**Net Contents:** Packets/Container

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GROUP

1A

INSECTICIDE

Rotam Methomyl 90SP Insecticide

In Water Soluble Packets

KEEP OUT OF REACH OF CHILDREN DANGER POISON



**PELIGRO** 

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#### FIRST AID

(N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

ATROPINE IS AN ANTIDOTE. SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

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### PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. FATAL IF SWALLOWED. MAY BE FATAL IF INHALED OR GETS IN EYES, DO NOT BREATHE DUST OR SPRAY MIST,

Do not get in eyes or on clothing. Wear protective eyewear and respirator. Harmful if absorbed through skin. Avoid contact with skin. Wash hands thoroughly with soap and water after handling.

POISONING SYMPTOMS: Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section on the ROTAM METHOMYL 90SP label and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT:** Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Refer to inside label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions For Use.

### Water Soluble Powder In Water Soluble Bags

**Active Ingredient** 

Methomyl

(S-methyl-N-[(methylcarbamoyl)

oxy]thioacetimidate) 90%
Inert Ingredients 10%

TOTAL 100%

EPA Reg. No. 83100 - TBA EPA Est. No.: TBA

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Net Contents: Packets/Container

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# PRECAUTIONARY STATEMENTS (Continued) HAZARDS TO HUMAN AND DOMESTIC ANIMALS DANGER

#### PERSONAL PROTECTIVE EQUIPMENT

#### Applicators and others exposed to the diluted spray solution must wear:

- Long-sleeved shirt and long pants.
- Chemical resistant gloves such as barrier laminate or butyl rubber.
- Shoes plus socks.
- Protective eyewear.

# Mixers, loaders, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- · Long sleeve shirt and long pants.
- · Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- · Socks and chemical resistant footwear.
- Protective eyewear.
- · Respirator as outlined below.
- Chemical resistant apron.

For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

For exposures outdoors, Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P, or HE prefilter Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROL STATEMENTS**

#### Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

Pilots must not assist in the mixing and loading operations.

### **USER SAFETY RECOMMENDATIONS**

#### **Users Should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- · Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

# DIRECTIONS FOR USE Restricted Use Pesticide

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI grapes = 7 day; REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangerine = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all >14 mils
- Shoes plus socks
- · Protective eyewear

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Notify workers of the application to grapes by warning them orally and by posting warning signs at entrances to treated areas.

## CENERAL INFO

### GENERAL INFORMATION

Chemigation: Overhead sprinkler chemigation is allowed for use in alfalfa, barley, oats, onions, potatoes, rye, sugar beets, and wheat. Refer to supplemental, or Special Local Need (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Do not formulate this product into other End-use products without written permission from Rotam.

ROTAM METHOMYL 90SP insecticide should be used only in accordance with directions for use on this label or in separate Rotam supplemental labeling. Rotam will not be responsible for use of the product in a manner not specified by Rotam in the product's labeling and User assumes all risk for such use.

ROTAM METHOMYL 90SP is a dry powder to be dissolved in water for application by mechanical ground, overhead sprinkler, or aerial application Handheld equipment is prohibited for application to crops.

Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Pilots must not assist in the mixing and loading operations.

Use only in comme l and farm plantings. Not for use in he plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

#### SCOUTING

Monitor insect populations to determine whether or not there is a need for application of ROTAM METHOMYL 90SP based on locally determined economic thresholds. More than one treatment of ROTAM METHOMYL 90SP may be required to control a population of pests.

#### BENEFICIAL ANTHROPODS

ROTAM METHOMYL 90SP at rates of 1/8 to 1/4 lb. per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

#### RESISTANCE MANAGEMENT

For resistance management, ROTAM METHOMYL 90SP insecticide is a group 1A insecticide. Repeated and exclusive use of ROTAM METHOMYL 90SP or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org.

#### INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating

when target pest permitted actions reach locally determined actions resholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

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#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying ROTAM METHOMYL 90SP.

Fill spray tank 1/4 to 1/2 full of water. Add ROTAM METHOMYL 90SP directly to spray tank. Carefully open the outer barrier bag containing ROTAM METHOMYL 90SP in a water soluble bag. Do not cut open the outer barrier bag. Invert the outer barrier bag allowing the inner water soluble bag to fall directly into the spray tank. Do not allow packets to become wet prior to adding to the spray tank. Do not handle, open, rip, tear, cut or perforate the inner water soluble bag. Mix thoroughly to fully dissolve the insecticide; once dissolved continued agitation is not required. Use mechanical or hydraulic means; do not use air agitation. Be sure the soluble packet is completely dissolved before adding any other ingredients. Spray mix should not be stored overnight in spray tank.

Compatibility: Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use ROTAM METHOMYL 90SP with Bordeaux mixture (copper sulfate and hydrated lime), Du Ter triphenyltin hydroxide, lime sulfur, Rayplex iron or in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

Tank-mix solutions containing Boron may affect solubility of the water soluble film. When using Boron containing solutions in a tank-mix, follow these procedures:

- -Add the correct amount of ROTAM METHOMYL 90SP water soluble packets first
- Be sure the soluble packets are completely dissolved
- -Introduce Boron containing solutions last

If the above procedure cannot be followed, and Boron is an essential part of the spray mix, substitute ROTAM METHOMYL LV formulation for the water soluble packets.

**Tank Mix Sequence:** Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

- ROTAM METHOMYL 90SP and other products in water soluble bags.
- 2. Water dispersible granules
- 3. Wettable powders
- 4. Water based suspension concentrates
- 5. Water soluble concentrates
- 6. Oil based suspension concentrates
- 7. Emulsifiable concentrates
- 8. Adjuvants, surfactants, oils
- 9. Soluble fertilizers
- 10. Drift retardants

Follow local practice and manufacturer's recommendation.

#### APPLICATION





Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of ROTAM METHOMYL 90SP should be applied, as needed, to keep pest populations within threshold limits. On most crops, ROTAM METHOMYL 90SP should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since ROTAM METHOMYL 90SP is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for grapes, peaches, and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.

For certain crops a minimum of 1 gallon per acre may be used providing the following conditions are met:

- equipment is adjusted to distribute spray uniformly over the spray swath,
- wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area,
- -local regulations do not prohibit low-volume aerial sprays,
- -use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa Peas (succulent) Celery Collards Anise Peppermint Peppers **Asparagus** Corn Barley Potato Cotton Cucumber Rye Beans Broccoli Lettuce Sóybean Melons Spinach Sugar beet Brussels sprouts Cabbage Mint Carrot Oats Summer Squash Cauliflower Peanuts Wheat

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

#### SPRAY TANK CLEANOUT

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

#### CHEMIGATION

Instructions for the Use of ROTAM METHOMYL 90SP on Alfalfa, Barley, Oats, Green and Dry Bulb Onions, Potatoes, Rye, Sugar Beets and Wheat

Using Overhead Inkler Chemigation

Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of ROTAM METHOMYL 90SP as high as possible in the application. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. ROTAM METHOMYL 90SP is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of ROTAM METHOMYL 90SP should take place when the insects are active and most likely to come into direct contact with the application.

**Types of Irrigation Systems** 

ROTAM METHOMYL 90SP may be applied through overhead sprinkler irrigation systems for control of various pests. Center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems; such as end tow, side (wheel) roll and solid set, may be used if they provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 90SP through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

# General Directions for Chemigation Preparation

A pesticide tank is recommended for the application of ROTAM METHOMYL 90SP in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 90SP into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 90SP. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7)

#### Injection into Chemigation Systems

Inject the proper amount of the ROTAM METHOMYL 90SP solution to the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing ROTAM METHOMYL 90SP into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing ROTAM METHOMYL 90SP to the irrigation water line, and apply no more than 0.2 inches of water per acre, just before the end of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 90SP must provide for uniform distribution of ROTAM METHOMYL 90SP treated water. Non-uniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other

experts if you have stions about achieving uniform distril on of the application.

#### **Equipment Calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 90SP. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

#### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 90SP is in the irrigation water.

#### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

- 1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### Posting of Areas to be Treated

Posting of areas to be chemigated is required when 1) any part of a treated area

is within 300 feet of ensitive areas such as residential area bor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

#### Cleaning the System

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid offtarget drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and

never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information

# AERIAL DRIFT REDUCTION ADVISORY INFORMATION Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See WIND, TEMPERATURE AND HUMIDITY, and TEMPERATURE INVERSIONS sections of this label.

### **Controlling Droplet Size – General Techniques**

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### **Controlling Droplet Size - Aircraft**

- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel
  to the airstream produces larger droplets than other orientations and is the
  recommended practice. Significant deflection from horizontal will reduce droplet
  size and increase drift potential.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
  - Boom Length For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
  - Application Height Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
  - Swath Adjustment When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downward edges

of the field, the policator must compensate for this dispresement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

#### **BOOM HEIGHT**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. AVOID GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

# AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can

result. It is the respectibility of the applicator to determine the a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

### AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.



#### CROP AND RATE CHARTS



Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid Lygus Bugs Blotch Leafminer Aphids Egyptian Alfalfa Weevil Larvae Loopers Beet Armyworm Armyworm Alfalfa Caterpillar Fall Armyworm Western Yellowstriped Armyworm Yellowstriped Armyworm	1/2 – 1	7*	48 hrs
	Alfalfa Weevil Larvae	1		
	Variegated Cutworm	1/4 - 1		The same
	Do not apply more than a Do not make more than Chemigation: ROTAM ME For best results, use the hi inches of water per acre.	4 pounds of ROTAM METH 10 applications per crop. THOMYL 90SP may be ap		
Anise (Fennel)	Cabbage Looper	1	7	48 hrs
	Beet Armyworm	1/2 - 1		40 1113
	Do not apply more than to Do not make more than 1		HOMYL 90SP per acre per crop.	
Apple( Ground application only)	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug  Codling Moth (10-12 day spray intervals)	1/2 - 1 *	14	72 hrs
	Leafrollers (Fruit-tree, Obliquebanded, Redbanded, Variegated) Lesser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	1*		
	Do not apply more than a Do not make more than a is 7 days.		HOMYL 90SP per acre per crop. nimum interval between treatments	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Asparagus	Beet Armyworm, Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/2		
		5 pounds of ROTAM METI 8 applications per crop.	HOMYL 90SP per acre per crop.	
Avocado	Western Avocado Leafroller Omnivorous Looper	1/2 - 1	1	48 hrs
		1 pound of ROTAM METH 2 applications per crop.	OMYL 90SP per acre per crop.	
Barley	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	Do not make more than Chemigation: ROTAM Notemigation. For best reapply in 0.1 to 0.2 inches information  *Cereal leaf beetle: ROTAM Notemigation at the edge of t	4 applications per crop. METHOMYL 90SP may be esults, use the highest listers of water per acre. See Comment of the control of the control of the control of the control of the conditions (such as, extrem wheat aphid need to begin	applied by overhead sprinkler d rate of ROTAM METHOMYL 90SP. HEMIGATION section for more in provide contact ovicidal effect on label directions. Application should vly laid eggs or in anticipation of egg this pest stage (egg) is not currently growing and not under stress from the temperatures or drought).	
Beans (Succulent) Including: Kidney, Lima, Mung, Navy, Pinto, Snap, Wax, Broad, Fava, Asparagus, Blackeyed peas Cowpeas, Chick peas,	Leafhopper Mexican Bean Beetle	1/4 – 1	Succulent Beans 1/4 – 1/2 lb. – 1, over 1/2 lb. – 3; 3 Vines 7 Hay	48 hrs
Garbanzo beans, Sweet lupine, White sweet lupine White lupine,	Fall Armyworm Variegated Cutworm	1/2		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Grain lupine	Corn Earworm Saltmarsh Caterpillar, Yellowstriped Armyworm Western Yellowstriped Armyworm, Lygus Bugs Thrips Aphids Loopers*	1/2 – 1		
	European Corn Borer (Ovicide & Larvicide)— Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals to control eggs and	1/4 – 1/2		
	Spotted Cucumber Beetle Succulent Beans - Do not apply more than 5 Do not make more than 6 * Do not use for Loopers	pounds of ROTAM METI 0 applications per crop.	HOMYL 90SP per acre per crop.	
Beans (Dry) (Follow Beans, Succulent)	(Follow Beans, Succulent)	(Follow Beans, Succulent)	14 - Dry Beans * 14 - Vines * 14 - Hay *	48 hrs
4	Do not apply more than 5 Do not make more than 7 Do not use for Loopers ir *Do not apply within 14 d	10 applications per crop.  1 AL & GA.	HOMYL 90SP per acre per crop.	
Beets (Table)	Imported Cabbageworm	1/4 - 1	0 - roots 10 - tops	48 hrs
	Beet Armyworm Cabbage Looper Diamondback Moth	1/2 - 1		
	Cucumber Beetle Variegated Cutworm	1/2		
	Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 8 applications per crop.			
Bermudagrass pasture	Fall Armyworm Armyworm Striped Grass Looper	1/4 - 1	7 - Forage * 3 - Dehydrated Hay **	48 hrs
	Do not apply more than 1 pound of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop. *Do not apply within 7 days of feeding forage or allowing livestock to graze. **Do not apply within 3 days of cutting for hay.			
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	1/2	3	48 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	RE
	Cranberry Fruitworm* Cherry Fruitworm*	1/2 - 1		
	Flea Beetle (larvae) Sawfly (larvae) Blueberry Leafroller	1		
	Blueberry Maggot	1/4 - 1/2		
	Do not apply during blo Do not apply more than 4 Do not make more than * For ground use only.	pounds of ROTAM METHON applications per crop.	MYL 90SP per acre per crop.	
Broccoli	Loopers, Diamondback Moth	1/2 - 1 **	3	48 hrs
	Imported Cabbageworm	1/4 - 1 **		
		10 applications per crop; n	HOMYL 90SP per acre per crop minimum interval between treatments	
Brussels Sprouts	Loopers Imported Cabbageworm, Diamondback Moth	1/2 - 1 **	3	48 hrs
	Variegated Cutworm	1/2 **		
Cabbage	Do not make more than 10 ** Add a wetting agent 1 Loopers *	0 applications per crop; minim	HOMYL 90SP per acre per crop. um interval between treatments is 2 days.	48 hrs
	Diamondback Moth Fall Armyworm			
	Cabbageworm	- 1/4 - 1 **		
	Variegated Cutworm	1/2 **		
		5 applications per crop; minim s in AL & GA.	HOMYL 90SP per acre per crop. um interval between treatments is 2 days.	
Carrot	Beet Armyworm Armyworms Aster Leafhopper	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/4 - 1/2		
= -7 - 17	Do not apply more than 7 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 10 applications per crop.			
Cauliflower	Imported Cabbageworm	1/4 - 1 **	3	48 hrs
	Loopers Diamondback Moth	1/2 - 1 **		
	Variegated Cutworm	1/2 **	HOMYL 90SP per acre per crop.	-

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Celery	Beet Armyworm Aster Leafhopper	1/2 - 1	7	48 hrs
	Loopers	1		
•	Variegated Cutworm	1/2		
	Armyworms	1/4 - 1		
	Do not make more than 10 applications per cre		METHOMYL 90SP per acre per crop.	
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1/2 - 1	. 80	48 hrs
	Do not apply more than 2 Do not make more than 2	2 pounds of ROTAM N 2 applications per crop	METHOMYL 90SP per acre per crop.	
Chinese Cabbage	Loopers Beet Armyworm	1/2 - 1*	10	48 hrs
	Do not apply more than a Do not make more than a Minimum of 25 gallons	10 applications/crop.	METHOMYL 90SP/acre/crop. und or 5 gallons by air.	
Collards (Fresh market	Diamondback Moth Variegated Cutworm	1/2	10	48 hrs
only)	Imported Cabbageworm Beet Armyworm Loopers*	1/2 - 1		
	Do not apply when temporal Do not apply when crop Do not apply more than to Do not make more than to a Do not use for Loopers	is less than 10" tall. 6 pounds of ROTAM N 8 applications per crop	METHOMYL 90SP per acre per crop.	
Corn (Field, Popcorn & Seed)	Earworm (Ovicide/Larvicide) Armyworm Fall Armyworm European Corn Borer- Ears 1-3 days or as needed Com Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids	1/4 - 1/2	21- Ears 3 - Forage* 21 - Stover*	48 hrs
	Variegated Cutworm, Beet Armyworm	1/2		
	Do not make more than *Corn forage is green ac then plants can be fed di	10 applications per cro tively growing plants the rectly to animals or us main after removal of the	hat are harvested with the ears intact, sed to make silage. Com stover are the the grain at full plant maturity. These	
Corn (Sweet)	Earworm-Whorl as needed	1/3 - 1/2		48 hrs
	Fall Armyworm Armyworm Earworm,- (Ovicide/Larvicide)	1/4 - 1/2	0 - Ears 3 - Forage 21- Stover	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
	European Corn Borer- Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids			
	Variegated Cutworm Beet Armyworm	1/2		
	area to determine crop and Do not apply more than	safety before full scale spra 7 pounds of ROTAM MET	ble to methomyl injury. Treat a small aying. HOMYL 90SP per acre per crop. minimum interval between treatments	
Cotton All U.S.	Ovicide/Larvicide - Bollworm, Tobacco Budworm (Initiate schedule when significant numbers of eggs are present Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) start treatment on low level population for suppression.	1/8 - 1/4 (see Insect Predator Section)	15	72 hrs
	Cotton Leafworm Cotton Fleahopper (as needed)	1/4 - 1/2 1/8 - 1/4		
	Aphids, Thrips	1/4		100
East of Rockies Only	(Early Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adults and nymphs)  Use as occasional spray in regular schedule but not more often than every 10 days.	1/2		

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Only	Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant  Bugs (adult and nymphs). Up to 3 applications at 3-5 day intervals after desired boll load set on plants.			
Texas	Cotton Aphid	1/4 - 2/3		
West of Rockies only	Larvicide for worms Bollworm, Fall Armyworm, Tobacco Budworm, Lygus Bugs Beet Armyworm Cotton Leafperforator	1/2 - 3/4		
	load set on plants.  For all cotton application of apply more than	ons: 2 pounds of ROTAM METH	on 3-5 day intervals after desired boll  HOMYL 90SP per acre per crop.	
		8 applications per crop . If excessive stop or alterna	ate with other insecticides.	
Cucumber	Use may redden cotton.		1/2 lb 1 Over 1/2 lb 3	48 hrs
Cucumber	Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm	If excessive stop or alterna	1/2 lb 1	48 hrs
Cucumber	Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than	1/2 - 1	1/2 lb 1	48 hrs
Cucumber	Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than	1/2 - 1  1/2 6 pounds of ROTAM METH	1/2 lb 1 Over 1/2 lb 3	
	Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm Corn Earworm	1/2 - 1  1/2 - 1  6 pounds of ROTAM METH 12 applications per crop.  1/4 - 1  1/2 - 1	1/2 lb 1 Over 1/2 lb 3	
	Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm Corn Earworm  Do not apply more than Do not make more than	1/2 - 1  1/2 - 1  6 pounds of ROTAM METH 12 applications per crop.  1/4 - 1  1/2 - 1	1/2 lb 1 Over 1/2 lb 3  HOMYL 90SP per acre per crop.	48 hrs
	Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm  Do not apply more than Do not make more than Do not make more than Beet Armyworm	1/2 - 1  1/2 - 1  6 pounds of ROTAM METH 12 applications per crop.  1/4 - 1  1/2 - 1  5 pounds of ROTAM METH 10 applications per crop.  1/2 - 1  5 pounds of ROTAM METH 10 applications per crop.	1/2 lb 1 Over 1/2 lb 3  HOMYL 90SP per acre per crop.  5	48 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
	Do not make more than ** Add a wetting agent	n 6 applications per crop. to improve coverage.		
Grapefruit CA, AZ & HI only	Thrips Fruittree Leafroller Orange Tortrix Western Tussock Moth Beet Armyworm	1/2 - 1	1	72 hrs
		3 pounds of ROTAM METH 4 applications per crop.	HOMYL 90SP per acre per crop.	
Grapes East of Rockies only	Grape Berry Moth (apply pre- & post- bloom & repeat at 10-14 day intervals or as needed) Leafhoppers	1/2 - 1	1 - Fresh & Raisin 14 - Wine Grapes	7 days
All U.S.	Omnivorous Leafroller, Grape Leaffolder Orange Tortrix			
West of Rockies only	Saltmarsh Caterpillar Leafhoppers*			
	Climbing Cutworm (Treat infestation and repeat at 7-14 day intervals as needed)	1		
CA only	Grape Leaf Skeletonizer*	1/2 - 1		
	Thrips	1/2 - 1		4
	For all applications made to grapes in the United States:  Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 5 applications per crop.  * Leafhoppers & Grape Leaf Skeletonizer (Ground Application Only).			
Horseradish	Aphids Thrips	1/2	65	48 hrs
Ground application only		2 pounds of ROTAM METH 4 applications per crop.	HOMYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Leafy Green Vegetables: Beet (tops) Dandelions, Kale,	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1/2 - 1	10	48 hrs
Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Do not apply more than 4 Do not make more than 8 Do not use for Cabbage	applications per crop .	MYL 90SP per acre per crop.	
Lemon CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1/2 - 1	1	72 hrs
( - 1 ) P-	Do not apply more than 3 p Do not make more than 4 a		MYL 90SP per acre per crop.	
Lentils	Western Yellowstriped Armyworm	1/2 - 1	21	48 hrs
	Do not apply more than 1 p		IYL 90SP per acre per crop.	
Lettuce	Alfaifa Looper	1/4 - 1	1/4-1/2 lb 7	48 hrs
(Head and Leaf varieties)	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1/2 - 1	over 1/2 lb 10	
	Variegated Cutworm	1/2		
	Do not make more than 15 2 days. Lettuce (leaf varieties) Do not apply more than 4 p	pounds of ROTAM METHO	MYL 90SP per acre per crop. mum interval between treatments is MYL 90SP per acre per crop. num interval between treatments is 2	
Melons Including: Canteloupe Casaba Santa Claus melon Crenshaw melon Honeydew melon Honey balls Persian melon Golden	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1/2 - 1	1/2 lb 1 over 1/2 lb 3	48 hrs
Pershaw melon	Variegated Cutworm	1/2		
Mango melon Pineapple melon Snake melon Watermelon	Do not apply more than 6 p Do not make more than 12		MYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Mint (Peppermint, Spearmint)	Variegated Cutworm Alfalfa Looper	1	14	48 hrs
	Flea Beetles	3/4 - 1		
	Do not apply more than a Do not make more than	2 pounds of ROTAM METHON 4 applications per crop.	MYL 90SP per acre per crop.	
Nectarine	Thrips	1/2 - 1	1	72 hrs
CA & AZ only	Do not apply more than Do not make more than	3 pounds of ROTAM METHOM 3 applications per crop.	MYL 90SP per acre per crop.	
Oats	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	. 7	48 hrs
	Do not make more than 4 applications per crop. Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: ROTAM METHOMYL 90SP can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.  **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			
	Beet Armyworm	1/2 - 1 **	7 - Green and	48 hrs
Onions (Green & Dry Bulb)	Thrips* Variegated Cutworm Black Cutworm	1 **	Dry Bulb Onions	
	Do not make more than days.  Onions, dry bulb  Do not apply more than treatments is 5 days.  *Chemigation: ROTAM is chemigation to control the per plant. For best result	4 pounds of ROTAM METHOM 8 applications per crop; minimum METHOMYL 90SP may be apprips. Begin applications before s, add a wetting agent. Apply interior for more information.	MYL 90SP per acre per crop.  um treatment interval between	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Oranges CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruittree Leafroller Beet Armyworm Citrus Cutworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 Do not make more than 4		OMYL 90SP per acre per crop.	
Peaches	Catfacing Insects (Plant Bugs and Stink Bugs) - begin at petal fall and continue in cover sprays at 7-to 10-day intervals Oriental Fruit Moth* -begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use. Green Peach Aphid	1 lb (or 1/4 lb per 100 gal up to 400 gal per acre)		4 days
Peanuts	Do not make more than 6  * Oriental Fruit Moth (Ground Corn Earworm*	applications per crop.	OMYL 90SP per acre per crop.	48 hrs
	Potato Leafhopper Fall Armyworm			
	Beet Armyworm	3/8 - 1		
	Green Cloverworm Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Granulate Cutworm	1/2 - 1		
	Do not make more than 8 * * ROTAM METHOMYL 90 **Soybean Looper is diffici	applications per crop. SP has ovicidal and larvicult to control. ater than 1 per 2" long. U	OMYL 90SP per acre per crop.  cidal control on corn earworm.  se higher rate for severe infestations.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Pears Northeast only	Green Fruitworm Oblique banded Leafroller	1/2 - 1 *	7	48 hrs
	Do not make more than:		HOMYL 90SP per acre per crop. re.	
Peas (succulent) Including: Pigeon peas Chick peas Garbanzo beans Dwarf peas	Alfalfa Looper Cabbage Looper* Pea Aphid Beet Armyworm Saltmarsh Caterpillar Variegated Cutworm	1/2 - 1	1 - Peas 5 - Forage 14 - Hay	48 hrs
Garden peas Green peas English Peas	Alfalfa Caterpillar Armyworm Green Cloverworm	1/4 - 1		
Field peas Edible pod peas		6 applications per crop; mi	HOMYL 90SP per acre per crop. inimum interval between treatments is 3	
Pecans	Aphids	1/2 - 1	30	48 hrs
Southeast only	Do not apply more than 7 pounds of ROTAM METHOMYL 90SP/acre/crop.  Do not make more than 7 applications per crop.			
Peppers Including: Bell Hot Pimentos	Loopers Beet Armyworm Green Peach Aphid Armyworm Fall Armyworm	1/2 - 1	3	48 hrs
Sweet	Variegated Cutworm	1/4 - 1/2		
	European Corn Borer	1		
	Do not apply more than Do not make more than		HOMYL 90SP per acre per crop.	
	Omnivorous Leafroller	1	14	48 hrs
Pomegranates	Do not apply more than 2 Do not make more than 2	2 pounds of ROTAM METH 2 applications per crop.	HOMYL 90SP per acre per crop.	
Potato	Tuberworm* Loopers Aphids Beet Armyworm Leafhoppers Fall Armyworm	1/2 - 1	6	48 hrs
	Variegated Cutworm Flea Beetles	1/2		
		5 pounds of ROTAM METI 10 applications per crop.	HOMYL 90SP per acre per crop.	

Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
chemigation. For best resu Apply in 0.1 to 0.2 inches of *Repeat applications of RC needed, to control tuber we insecticides with different in populations as low as poss tubers. Failure to adequate	Its, use the highest listed rate of Roff water per acre. See CHEMIGATION METHOMYL 90SP on a 5-7 orm populations. An application schooles of action may be needed to lible prior to harvest to reduce the rely control tuberworm larvae prior to	OTAM METHOMYL 90SP. ON section. day schedule, or longer as sedule of effective keep foliar feeding larval isk of larval damage to the	
Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop.  Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: ROTAM METHOMYL 90SP can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.  **Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).			
Sorghum Webworm	1/2 *	14 **	48 hrs
Sorghum MidgeApply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Corn Earworm	1/4 - 1/2 *		
	Chemigation: ROTAM MET chemigation. For best resu Apply in 0.1 to 0.2 inches of Repeat applications of RC needed, to control tuber we insecticides with different in populations as low as possetubers. Failure to adequate increases the risk of tuber of tubers. Failure to adequate increases the risk of tuber of tubers. Failure to adequate increases the risk of tuber of tubers. Failure to adequate increases the risk of tuber of tubers. Failure to adequate increases the risk of tuber of tubers. Failure to adequate increases the risk of tuber of tubers. Failure to adequate increase the risk of tubers. For application: ROTAM ME chemigation. ROTAM ME chemigation. For best resu Apply in 0.1 to 0.2 inches of information.  *Cereal leaf beetle: ROTAM cereal leaf beetle eggs whe timed to correspond with the achieve maximum ovicid registered in California.  **Aphids: For aphid control adverse environmental contadverse environmen	Chemigation: ROTAM METHOMYL 90SP may be applied by chemigation. For best results, use the highest listed rate of RC Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATI *Repeat applications of ROTAM METHOMYL 90SP on a 5-7 needed, to control tuber worm populations. An application sch insecticides with different modes of action may be needed to populations as low as possible prior to harvest to reduce their tubers. Failure to adequately control tuberworm larvae prior to increases the risk of tuber damage.  Armyworms  Cereal Leaf Beetle* Aphids**  Do not apply more than 2 pounds of ROTAM METHOMYL 90 make more than 4 applications per crop. Chemigation: ROTAM METHOMYL 90SP may be applied by chemigation. For best results, use the highest listed rate of RC Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATI information.  *Cereal leaf beetle: ROTAM METHOMYL 90SP can provide a cereal leaf beetle eggs when applied according to label direction and to correspond with the appearance of newly laid eggs of to achieve maximum ovicidal effect. Use on this pest stage (exergistered in California.  **Aphids: For aphid control, crop must be actively growing and adverse environmental conditions (such as, extreme temperat Applications on Russian wheat aphid need to begin when aphid adults per stem).  Sorghum Webworm  1/2 *  Sorghum Midge Apply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm)	Insects  Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section.  *Repeat applications of ROTAM METHOMYL 90SP on a 5-7 day schedule, or longer as needed, to control tuber worm populations. An application schedule of effective insecticides with different modes of action may be needed to keep foliar feeding larval populations as low as possible prior to harvest to reduce the risk of larval damage to the tubers. Failure to adequately control tuberworm larvae prior to crop senescence or vine kill increases the risk of tuber damage.  Armyworms  Cereal Leaf Beetle* Aphids**  Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop. Chemigation: For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  *Cereal leaf beetle: ROTAM METHOMYL 90SP can provide contact ovicidal effect on cereal leaf beetle eggs when applied according to label directions. Application should be timed to correspond with the appearance of newly laid eggs or in anticipation of egg hatch to achieve maximum ovicidal effect. Use on this pest stage (egg) is not currently registered in California.  *Aphids: For aphid control, crop must be actively growing and not under stress from adverse environmental conditions (such as, extreme temperatures or drought). Applications on Russian wheat aphid need to begin when aphid population is low (<10 adults per stem).  Sorghum Midge  -Apply when 50% bloom and 3-5 days later if needed.  Fall Armyworm (Budworm)

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Vel Me	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Corn Earworm Light to Moderate infestations	1/8 - 1/4 (see Insect Predator section)	14 - Soybeans 3 - Forage 12 - Hay	48 hrs
	Moderate to severe infestations	1/4 - 1/2		
	Soybean Aphid	1/6 - 1/3		
Beet Armyworm Salt Marsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper Light to Moderate infestations  Moderate to severe infestations	1/4 - 3/8			
	severe	3/8 - 1/2		
	Do not apply more than 1 make more than 3 applica		DMYL 0SP per acre per crop. Do not	
Spinach	Alfalfa Loopers Cabbage Looper Beet Armyworm Fall Armyworm	1/2 - 1	7	48 hrs
	I all Allilywollin			
		1/2		
	Variegated Cutworm  Do not apply when minimum Do not apply to seedlings	um daily temperature is 32° F less than 3" diameter. pounds of ROTAM METHON		
Sugar Beet	Variegated Cutworm  Do not apply when minimum Do not apply to seedlings Do not apply more than 4	um daily temperature is 32° F less than 3" diameter. pounds of ROTAM METHON		48 hrs

Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI	
Do not make more than 10 app *Chemigation: ROTAM METHO chemigation to control beet arm best results, use the highest lis		y overhead sprinkler rellowstriped armyworm. For YL 90SP. Apply in 0.1 to 0.2		
Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1/2 - 1	1/2 lb 1 day over 1/2 lb 3 days	48 hrs	
Do not make more than 12 a *Fruit of the Gourd (Cucurbit fruit is edible cooked or raw,	applications per crop.  accae) family that are consumed once picked cannot be stored, h	d when immature, 100% of the as a soft rind which is easily		
Thrips Western Tussock Moth Orange Tortrix, Beet Armyworm	1/2 - 1	1	72 hrs	
Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 4 applications per crop.				
		- por dere per erep.		
		5 - Flue cured 14 - Air or fire cured	48 hrs	
	Do not apply more than 5 por Do not make more than 10 a *Chemigation: ROTAM MET chemigation to control beet a best results, use the highest inches of water per acre. Se Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Do not apply more than 6 por Do not make more than 12 a *Fruit of the Gourd (Cucurbit fruit is edible cooked or raw, penetrated, and if seeds were the second or	Insects  Do not apply more than 5 pounds of ROTAM METHOMYL 90 Do not make more than 10 applications per crop.  *Chemigation: ROTAM METHOMYL 90SP may be applied by chemigation to control beet armyworm, aphids and western y best results, use the highest listed rate of ROTAM METHOM inches of water per acre. See CHEMIGATION section for motion inches of ROTAM METHOMY. See CHEMIGATION section for motion inches of ROTAM METHOMY. See CHEMIGATION section for motion inches of ROTAM METHOMY. See CHEMIGATION section for motion inches of ROTAM METHOMY. See CHEMIGATION section for motion inches of ROTAM METHOMY. See CHEMIGATION section for motion inches of ROTAM METHOMY. See CHEMIGATION section for motion inches of ROTAM METHOMY. See CHEMIGATION section for motion for motion inches of ROTAM METHOMY. See CHEMIGATION section for motion for motion for motion for motion for motion for motion	Insects  ROTAM METHOMYL 90SP Lbs. Per Acre  Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 10 applications per crop.  "Chemigation: ROTAM METHOMYL 90SP may be applied by overhead sprinkler chemigation to control beet armyworm, aphids and western yellowstriped armyworm. For best results, use the highest listed rate of ROTAM METHOMYL 90SP. Apply in 0.1 to 0.2 inches of water per acre. See CHEMIGATION section for more information.  Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Do not apply more than 6 pounds of ROTAM METHOMYL 90SP per acre per crop. "Fruit of the Gourd (Cucurbit accae) family that are consumed when immature, 100% of the fruit is edible cooked or raw, once picked cannot be stored, has a soft rind which is easily penetrated, and if seeds were harvested they would not germinate.  Thrips Western Tussock Moth	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Tomato (Including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1/2 - 1	1	48 hrs
	Variegated Cutworm	1/2		
	Do not apply more than 7 pounds of ROTAM METHOMYL 90SP per acre per crop Do not make more than 16 applications per crop.  * For tomatillos do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 5 applications per crop.			
Turf (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	1 (2/5 ozs. per 1000 sq. ft.)		48 hrs
	Do not apply more than 4 p Do not make more than 4 a Do not graze or feed.		HOMYL 90SP per acre per crop.	
	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
Wheat	Do not make more than 4 a Chemigation: ROTAM MET chemigation. For best resul Apply in 0.1 to 0.2 inches of information.  *Cereal leaf beetle: ROTAM cereal leaf beetle eggs whe timed to correspond with the to achieve maximum ovicid in California.  **Aphids: For aphid control, adverse environmental con	pplications per crop. HOMYL 90SP may be a ts, use the highest lister f water per acre. See Cl METHOMYL 90SP ca n applied according to le e appearance of newly al effect. Use on this pe crop must be actively g ditions (such as, extrem	ADMYL 90SP per acre per crop.  applied by overhead sprinkler of rate of ROTAM METHOMYL 90SP.  HEMIGATION section for more  In provide contact ovicidal effect on label directions. Application should be laid eggs or in anticipation of egg hatch set stage (egg) is not currently registered growing and not under stress from the temperatures or drought).	

redo por 352-342/

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage: Store in a tightly closed coptainer in a cool, dry place.

Prohibitions: Do not reuse empty container.

Pesticide Disposal: Pesticide spray mixture or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**SPILLS:** For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

In the event of a major spill, fire or other emergency, call CHEMTREC, day or night, 1-800-424-9300.

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam Agrochemical Company Limited or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam Agrochemical Company Limited and Seller harmless for any claims relating to such factors.

Rotam Agrochemical Company Limited warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam Agrochemical Company Limited, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM LTD MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, Rotam Agrochemical Company Limited or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM AGROCHEMICAL COMPANY LIMITED AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM AGROCHEMICAL COMPANY LIMITED OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Rotam Agrochemical Company Limited and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam Agrochemical Company Limited.

Manufactured by: Rotam Agrochemical Company Ltd. 7/F Cheung Tat Centre 18 Cheung Lee Street Chai Wan, Hong Kong 1-866-927-6826

Registered: [TBA]

#### RESTRICTED USE PESTICIDE

**Due to high Acute Toxicity to Humans** 

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient Methomyl		
(S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)	90%	
Inert Ingredients	10%	
TOTAL	100%	

EPA Reg. No. 83100 - TBA

EPA Est. No.: TBA

# KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions For Use on inside booklet.

# FIRST AID (N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

### ATROPINE IS AN ANTIDOTE. SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

#### PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** FATAL IF SWALLOWED. MAY BE FATAL IF INHALED OR GETS IN EYES. DO NOT BREATHE DUST OR SPRAY MIST.

Do not get in eyes or on clothing. Wear protective eyewear and respirator. Harmful if absorbed through skin. Avoid contact with skin. Wash hands thoroughly with soap and water after handling.

**POISONING SYMPTOMS:** Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section on the ROTAM METHOMYL 90SP label and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT:** Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and

organophosphorous secticides, 2-PAM may be used as recent to supplement the atropine sulfate treatment. Do not use morphise.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Storage: Store in a tightly closed container in a cool, dry place.

Prohibitions: Do not reuse empty container.

Pesticide Disposal: Pesticide spray mixture or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use

according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitally landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SPILLS: For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call CHEMTREC, day or night, 1-800-424-9300.

red ?

Manufactured by:
Rotam Agrochemical Company Ltd.
7/F Cheung Tat Centre
18 Cheung Lee Street
Chai Wan, Hong Kong
1-866-927-6826

Registered:

Net Contents:
Packets/Container

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wanting on
jacket
12/20

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(Tankenia)

# Memorandum

Date:	12/17/10
To:	PM > Regulatory Manager
From:	Information Services Branch, ITRMD
indication	on that MRIDs for the enclosed studies have sted to OPPIN.
from th	expect that it will be approximately 5 days a bove date before the study-level data is le in OPPIN.
	ou have any questions about this process, ontact Teresa Downs (305-5363).

☐ fully accepted submission

Arejected submission

☐ partially accepted submission

This is a:

# Rejected

(01)

Studies



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

December 17, 2010

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

FRANK E. SOBOTKA, PH.D.
IPM RESOURCES LLC
ROTAM AGROCHEMICAL COMPANY LIMITED
7/F CHEUNG TAT CENTRE
4032 CROCKERS LAKE BLVD., STE 818
SARASOTA, FL 43238-

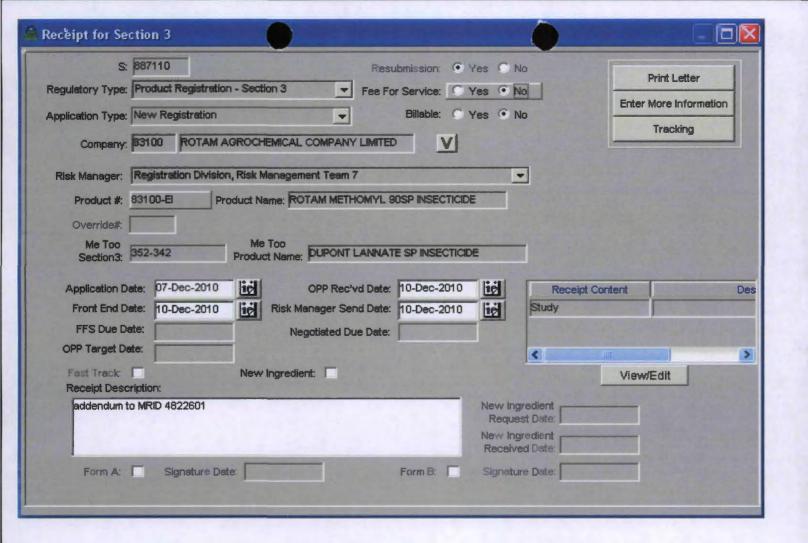
Report of Analysis for Compliance with PR Notice 86-5

Thank you for your submittal of 10-DEC-10. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

We are unable to accept your data submittal for further processing and review, because of the significant deficiencies noted below. It is being returned to you for correction. If deficiencies were found which apply to your overall submission, they are described immediately following this paragraph. If problems are found with individual studes, they are described below linked to the study identifier found on the enclosed copy of your bibliography.

Rejected Study [01]:

\* Judging from the pagination of the study, pages 01 - 34 were omitted from the submitted copy.



# IPM Resources LLC

4032 Crockers Lake Blvd., Suite 818, Sarasota, FL 34238 Phone: (215) 497-9501 Fax: (215) 497-9502

"an intellectual property management resource company"

VIA UPS EXPRESS	_	Studies rejectes		December 07, 2010
- 8	sciperoided	for MRID Vreplaced by sub 11 dated 3/10/11	REF.	ebert.john@epa.gov 1 -703-308-6249]

Document Processing Desk (REGFEE)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501
ATTN: John Hebert PM 7

SUBJECT:

Application for Registration - Rotam Methomyl 90SP Insecticide

Submission of Addendum to Volume 1-R (ADDENDUM I)

EPA File Symbol 83100 - EI

Dear Mr. Hebert:

The purpose of this letter is to transmit to the Agency on behalf of Rotam Agrochemical Company Limited an Addendum (ADDENDUM I) to MRID 48226101 (Volume 1-R/Product Chemistry Group A) for the above subject Product Submission in review. Rotam is requesting that a new MRID number be issued for this report, and, the report addended to MRID 48226191 for review.

Addendum I adds a second Confidential Statemet of Formula (Alternative CSF) with supporting information on the Products Identity and Disclosure of Ingredients, including Manufacturing Process, for an Alternative Formulation containing a colorant. The specified Colorant (inert dye) is a Food Grade Colorant approved for direct application and packaging of food products.

The addition of a colorant incorporates better stewarship of the product by alowing the end-user to identify the presence of the product in the tank when mixing and applying the product.

Rotam trusts that the Agency will give this use special consideration when evaluating the products "significant similarity" in composition with respect to FIFRA Section 3(c)(3)(b)(i). The following documents are enclosed with this submission:

Administrative Materials	(MRID No.:	
--------------------------	------------	--

- Transmittal Form (EPA Form 8570-1)
- Confidential Statement of Formula (EPA Form 8570-4), 2 Copies

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John Hebert, PM 7 EPA Registrations Branch December 07, 2010

SUBJECT: Application for Registration - Rotam Methomyl 90SP Insecticide/Continued EPA File Symbol 83100 - EI

Three copies each of the following:

VOLUME NO.	DESCRIPTION	OPPTS GUIDELINE REF. NO.	MRID NO.
1-R ADDENDUM I	Product Identity & Disclosure of Ingredients, Including Manufacturing Process/Rotam Methomyl 90SP Insecticide [Report No.: METHMYL 90SP]	Group A 830.1550 830.1600 830.1650	Reject (01)

We appreciate your assistance with this Application. If you have any questions or need additional information, please do not hesitate to contact us at any time.

Sincerely yours,

Senior Partner

IPM Resources LLC (Agent)

ATT:

<b>\$EPA</b>	United States  Environmental Protection Agency Washington, DC 20460			ration diment	OPP Identifier Number	
	Appli	cation for Pesticide - S	ection I			
Company/Product Number     Rotam Agrochemical Company Ltd / 83100			2. EPA Product Manager John Hebert		osed Classification	
4. Company/Product (Na Rotam Methomyl 90	ne) SP Insecticide (83100-EI)	PM# 7	PM#			
ROTAM Agrochemical Co C/O IPM Resources LLC 4032 Crockers Lake Blvd. Sarasota, FL 34238	(Agent)	(b)(i), my produ to: EPA Reg. No	uct is similar or idea	ntical in comp	FRA Section 3(c)(3) position and labeling	
		Section - II				
Submission of Adden	tional page(s) if necessary. (For		Explain below.  MRID 48226101) fo	r Rotam Metho a Food Use Co	orbyl 90SP Insecticide colorant into the Basic	
		Section - III			•••••	
1. Material This Product	Will Be Packaged In:				••••	
Child-Resistant Packaging Yes No Certification must be submitted	Unit Packaging  Yes  No  If "Yes"  Unit Packaging wgt. conte	iner Peckage wgt conta	J J	Metel Plastic Glass Paper Other (Spec	cify)	
3. Location of Net Conte	ts Information 4. Size  Container	(s) Retail Container	5. Location of L	abel Directions		
6. Manner in Which Labe Printed	is Affixed to Product or glued	Lithograph O Paper glued Stenciled	ther			
		Section - IV				
1. Contact Point (Comple	ete items directly below for identi	ification of individual to be contact	ed, if necessary, to p	process this app	plication.)	
Frank F Cabatta Dh D		Title Agent		Telephone No. 215 497-9	o. (Include Area Code)	
		. 3		210 101 0	001	

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

> 3. Title Agent

5. Date

EPA Form 8570-1 (Rev. 3-94) Previous editions are obsolete.

2. Signature

Frank E. Sobotka, Ph.D.

December 07, 2010

Received

(Stamped)

# 21-Day Screen Completed by Contractor

21-Day Expires on 10-5-10

Jacket # 83100-ET MRID# 482261

Content Screen: Recommended to Pass/Fail

86-5 Review: Passed/Failed/NA

Transfer This Jacket to:

STEPHEN SCHAIBLE

PM-7

# Completion of 21-Day Content Screen

PM- 7

EPA Reg. #(File Symbol) 83/00-EI

Decision # D\_\_\_\_\_

Data package delivered to you on 10/1/10 (date)

Jacket/Mini-jacket will be transferred to you today. (Pick up from Document Center)

Thank you,



Registration Division's 21-Day Content Team

9

# Memorandum

Date:	9 /	22/10		
То:	PM	7	, Regulat	ory Manager
From:	Informat	ion Servi	ces Branch, IT	RMD
indicatio	-	RIDs for	ta submission the enclosed st	
from the	-	late befor	be approxim re the study-lo	
		-	ons about this ns (305-5363)	•
This is a	□ pa		ted submission cepted submisomission	



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

September 21, 2010

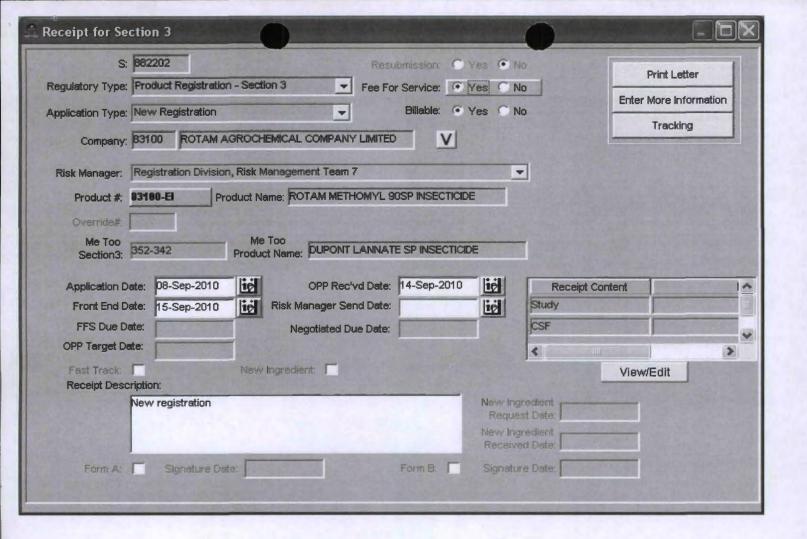
OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

IPM RESOURCES LLC
ROTAM AGROCHEMICAL COMPANY LIMITED
7/F CHEUNG TAT CENTRE
4032 CROCKERS LAKE BLVD., STE 818
SARASOTA, FL 43238-

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your submittal of 14-SEP-10. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.



482261-00

# IPM Resources LLC

4032 Crockers Lake Blvd., Suite 818, Sarasota, FL 34238 Phone: (215) 497-9501 Fax: (215) 497-9502

"an intellectual property management resource company"

September 10, 2010

VIA UPS EXPRESS

hebert.john@epa.gov [REF. **2** 1 -703-308-6249]

Document Processing Desk (REGFEE)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501
ATTN: John Hebert PM 7

SUBJECT: Application for Registration - Rotam Methomyl 90SP Insecticide

EPA File Symbol 83100 -

Dear Mr. Hebert:

The purpose of this letter is to transmit to the Agency on behalf of ROTAM AGROCHEMICAL COMPANY LTD. a "Me Too" application to register Rotam Methomyl 90SP Insecticide. This product is similar or identical in composition and labeling to DuPont Lannate SP (EPA Reg. No.

All data to support this registration are included in this submission, or cited using cite-all method of data support, except for two Group B Physical/Chemical Property studies, Storage Stability and Corrosion Characteristics. These two studies will be conducted and a report sent to the Agency upon completetion.

This End Use Product will be formulated using Rotam Methomyl Technical. A Formulator's Exemption Statement has been included in this submission. Please note that an application to support registration of Rotam Methomyl Technical was submitted approximately one week earlier.

252

000000

John Hebert, PM 7 EPA Registrations Branch September 10, 2010

### SUBJECT: Application for Registration - Rotam Methomyl 90SP Insecticide/ Continued EPA File Symbol 83100 - To be Added

The	foll	owing	are	enc	losed	in	this	sul	bmi	ssion	
-----	------	-------	-----	-----	-------	----	------	-----	-----	-------	--

Administrative Materials: (MRID No.:

- Transmittal Form (EPA Form 8570-1)
- PRIA Prepay Receipt
- Certification With Respect to Citation of Data (EPA Form 8570-34)
- Data Matrix (EPA Form 8570-35) w/Redacted version
- Formulator's Exemption Statement (EPA Form 8570-27)
- Confidential Statement of Formula (EPA Form 8570-4), 2 Extra Copies
- Draft Labeling Rotam Methomyl 90SP Insecticide, 5 Copies
- Three copies each of the following:

VOLUME NO.	DESCRIPTION	OPPTS GUIDELINE REF. NO.	MRID NO.
1-R	Product Identity & Disclosure of Ingredients, Including Manufacturing Process & Discussion of Formation of Impurities/Rotam Methomyl 90SP Insecticide [Report No.: METHMYL 90SP]	Group A 830.1550 830.1600 830.1650 830.1670	48226101
2	VOLUME 2 NOT SUBMITTED		0 00 0 0 00 0 0 00 0
3	Enforcement Analytical Method (Active Ingredient Content)/ Rotam Methomyl 90SP Insecticide[Report No.:SOP20458-III]	830.1800	48226102

John Hebert, PM 7 EPA Registrations Branch September 10, 2010

## SUBJECT: Application for Registration - Rotam Methomyl 90SP Insecticide/ Continued EPA File Symbol 83100 - To be Added

4	Determination of Physical and Chemical Properties of Rotam Methomyl 90SP Insecticide [Report No.: 22381]	Group B 830.6302 830.6303 830.6304 830.6313 830.6314 830.7000 830.7050	48226103
5	THIS VOLUME 5 NOT SUBMITTED		
6	Acute Toxicology Studies Rotam Methomyl 90SP Insecticide [Report No.: 2918 to 2923]	870.1100 870.1200 870.1300 870.2400 870.2500 870.2600	48226104

We appreciate your assistance with this Application. If you have any questions or need additional information, please do not hesitate to contact us at any time.

Sincerely yours,

Senior Partner

IPM Resources LLC (Agent)

Frank E. Sobotka, Rh.D

ATT:

# NEW APPLICATIONS

DATE: 9/15/10
FILE NUMBER: 83100-EI
FEP (OPPIN ENTRY) pem 4/16/10 (Initial & date)
FILE ROOM: (Initial & date)
SIG: (Initial & date)
FILE ROOM: (Initial & date)
JACKET TO SHELF (DATA)

# PRIA 2 – 21 Day Content Screen Review Worksheet

(EPA/OPP Use Only)

21 D Expe Divis	Pay Screen Start Date: 9-14-10 3/23/09  Perts In-Processing Signature: B. Posteg-16  Signature: No Yes D	6-10 late	Fee I	aid: Y	es	/
EPA I	Reg. Number: 83/00-ET EPA Receipt Date: 9-	14-1	0			
	Items for Review			Yes	No	N/A*
1	Application Form (EPA Form 8570-1)(link to form) signed & co-including package type	mplete		X		
	Confidential Statement of Formula all boxes completed, form sidated (EPA Form 8570-4) (Link to form)	igned, a	nd	X		
2	a) All inerts (link to http://www.epa.gov/opprd001/inerts/), including fragrances, approved for the proposed uses (see Footnote A)	yes	no			
3	Certification with Respect to Citation of Data (EPA Form 8570 form) completed and signed (N/A if 100% repack)	)-34) (Li	ink to	X		
	Certificate and data matrix consistent			X		
	If applicant is relying on data that are compensable, is the offer to pay statement included. (see Footnote B)	yes	no			
	If applicable, is there a letter of Authorization for exclusive use or					
4	Formulator's Exemption Statement (EPA Form 8570-27) (Link completed and signed (N/A if source is unregistered or applicant of technical)		,	X		
	Data Matrix (EPA Form 8570-35) (Link to form) both internal ar	nd exter	nal			

copies (PR 98-5) (Link to PR 98-5) completed and signed (N/A if 100% repack)

a) Selective Method (Fee category experts use)

b) Cite-All (Fee category experts use)

c) Applicant owns all data (Fee category experts use)

5 Copies of Label (link to <a href="http://www.epa.gov/oppfead1/labeling/lrm/">http://www.epa.gov/oppfead1/labeling/lrm/</a>)

(Electronic labels on CD are encouraged and guidance is available) (link to <a href="http://www.epa.gov/pesticides/regulating/registering/submissions/index.htm#labels">http://www.epa.gov/pesticides/regulating/registering/submissions/index.htm#labels</a>)

7	Is the data package consistent with PR Notice 86-5 (link to PRN 86-5)	X	
8	Notice of Filing (link to <a href="http://www.epa.gov/pesticides/regulating/tolerance_petitions.htm">http://www.epa.gov/pesticides/regulating/tolerance_petitions.htm</a> ) included with petitions (link to <a href="http://www.epa.gov/pesticides/regulating/tolerances.htm">http://www.epa.gov/pesticides/regulating/tolerances.htm</a> )		1
9	If applicable for conventional applications, reduced risk rationale (link to http://www.epa.gov/opprd001/workplan/reducedrisk.html)		X
	Required Data (link to <a href="http://www.epa.gov/pesticides/regulating/data_requirements.htm">http://www.epa.gov/pesticides/regulating/data_requirements.htm</a> ) and/or data waivers. See Footnote C.  a) List study (or studies) not included with application		
10			
LU			

#### Comments:

- Inerts approved for food we under 40 CFR 180, 920, preharoust app.

- According to the registrant, gwduliner 830, 6317,6319,6320,6321

were not submitted because they don't apply to the product properties of this product (see data mamix footnotes)

(suideline 830,1700 was not submitted

Efficacy data was not submitted

Contacted registrant on 09/20 for the following afficiencies:
· artification: should be selective method, not cite-all.

· formulators and csf: the vouriences number is incomplete According to the registrant, this reg # was submitted a week earlier, refer to the coverletter for his explanation

Registrant sent certification on: 09/21/10

Contacted registrant on 09/21 for study deficiencies (refer to email) study 02: confidential markings on page 6,60 study 03: illegibility on pages 111,149, 187, 224,348,415. Page 296 is missing. Corrections sent: 09/28/10. Studies now pass 86-5 keriew Tacket Failed: left for PM to duide if the guidelines submitted

are sufficient to support this product.

MRID: 482239

\* N/A - Not Applicable

#### Footnotes

A. During the 21 day initial content review, all CSFs will be reviewed to determine whether all inerts listed, including fragrances, are approved for the proposed uses. If an unapproved inert is identified, the applicant must either 1) resolve the inert issue by, for example, removing the inert, substituting it with an approved inert, submitting documentation that EPA approved the inert for the proposed pesticidal uses, correcting mistakes on the CSF, etc. or 2) provide the data to support OPP approval of the inert or 3) withdraw the application. Removing or substituting an inert ingredient will require a new CSF and may require submission of data. All information, forms, data and documentation resolving the inert issue must have been received by the Agency or the application withdrawn within the 21 day period, otherwise, the Agency will reject the application as described below.

To successfully complete this aspect of the 21 day initial content screen, applicants are strongly encouraged to verify that all inert ingredients have been approved for the application's uses even if a product is currently registered by consulting the inert Web

site [link to <a href="http://www.epa.gov/opprd001/inerts/lists.html">http://www.epa.gov/opprd001/inerts/lists.html</a>] and if the inert is not approved, to obtain the necessary inert approval prior to submitting an application to register a pesticide product containing that inert ingredient. Some inert ingredients are no longer approved for food uses or certain types of uses. The name and/or CAS number on a CSF must match the name and CAS number on this web site. Simple typographical errors in the name or CAS number have resulted in processing delays.

If an inert is not listed on the inert ingredient web site and the applicant believes that the inert has been approved, the applicant should contact the Inert Ingredient Assessment Branch (IIAB) at <a href="mailto:inertsbranch@epa.gov">inertsbranch@epa.gov</a> and resolve the issue. Copies of the correspondence with IIAB resolving the issue should accompany the application. All new inerts except PIP inerts are reviewed by IIAB. The IIAB should also be contacted for any questions on what supporting data needs to be submitted for and the Agency's inert review process. Questions on PIP inerts should be directed to the Chief of Microbial Pesticides Branch [Link to <a href="http://www.epa.gov/oppbppd1/biopesticides/contacts\_bppd.htm">http://www.epa.gov/oppbppd1/biopesticides/contacts\_bppd.htm</a>].

When a brand, trade, or proprietary name of an inert ingredient is listed on a CSF, additional information such as an alternate name of the inert, CAS number or other information [link to <a href="http://www.epa.gov/opprd001/inerts/tips.pdf">http://www.epa.gov/opprd001/inerts/tips.pdf</a>] must also be included to enable the Agency to determine if it has been approved. Each component of an inert mixture (including a fragrance) must be identified. In some cases, the supplier of the mixture or fragrance may need to provide this information to the Agency. Prior to the Agency's receipt of an application, applicants must arrange with a proprietary mixture or fragrance supplier to provide the component information to the Agency or promptly upon EPA's request. If the inert ingredients in a proprietary blend (including fragrances) cannot or are not identified or provided within the 21-day content review period, the Agency will reject the application.

During the 21 day content review, applicants should submit information to the individual identified by the Agency when the applicant is informed of an unapproved inert.

### **Unapproved Inerts Identified on CSFs**

All applications except conventional new products and PIPs

Once an unapproved inert is identified on a CSF, the Agency will contact the applicant with the following options:

- Correct the application by, for instance, correcting the inert's identity or CAS
  number, providing documentation that the inert has been approved, or
  removing the unapproved inert from the CSF or replacing it with one that is
  approved for the application's uses; or
- 2. Submit the information and data needed for the Agency to approve the unapproved inert. If this option is selected and implemented, the Agency may request an extension in the PRIA decision review timeframe to accommodate the inert review/approval process;

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of these options is selected and implemented by the applicant within the 21 day content review period, the Agency will reject the application and retain 25% of the full fee of the category identified.

#### Conventional New Product Applications

When the Registration Division identifies an unapproved inert on a CSF with an application for a new product that the applicant has not identified as requiring an inert approval (R311, R312 or R313), it will contact the applicant with the following options:

- 1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or
- 2. Submit the information and data needed for the Agency to approve the unapproved inert, including any required petition to establish or amend a tolerance or exemption from a tolerance. (This option may change the PRIA category for the application, which could require a longer decision review time and a larger fee. If additional fees are due, they must be received by the Agency within the 21 day content review period.)
- 3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21-day content-review period, the Agency will reject the application and retain 25% of the appropriate fee for the new product-inert approval category.

# PIP Applications

When the Biopesticide and Pollution Prevention Division identifies an unapproved inert on a PIP CSF and a request to approve the inert does not accompany the application, it will contact the applicant with the following options:

- Correct the application by, for instance, correcting the spelling or name of the inert to that in 40 CFR 174, or providing documentation that the inert has been approved; or
- 2. Submit the information and data needed for the Agency to approve the unapproved inert. If an inert ingredient tolerance exemption petition is required, the petition must be received by the Agency and the B903 fee paid within the 21 day period. If this option is selected and implemented, the Agency will discuss harmonizing the timeframe for both actions.

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21 day content review period, the Agency will reject the application and retain 25% of the fee.

- B. A policy on documentation of offers to pay is still being developed, however, for a me-too or fast track (similar/identical) new product, R300 or A530, an application without the necessary authorizations of offers to pay will be placed into either R301 or A531. The Agency recommends that authorizations of offers to pay be submitted with other PRIA applications to avoid delays in the Agency's decision.
- C. Biopesticide applicants are advised to contact the Agency and discuss study waivers prior to submitting their application to the Agency. Documentation of such discussions should be submitted with the study waiver.

Contact Name: Frank Sobotka Phone #: 215-497-9501

	Email:	
	First Call/Initials:	Second Call/Initials:
	Date: 09/20/10	Date:
	Time: 12:00	Time:
	This is	, EPA contractor.
	I'm calling regarding your su	bmission in support of
	83100-61 Kotam Mext	romal 908P Insecticide.
	83100-ET Kotam Meth	nomigle 29LV Insectrcide.
	We have found the following	deficiencies regarding:
	Volume/Study Title: 4	82261 / passed
	(ET) 4	82239
		(\$02: VI(196,60)
	Volume/Study Title:	DO8: FR(111,149,187,224,348,473. GR (296)
	Volume/Study Title:	10mgl 908P Inschicide. 10mgl 29LV Inschicide.
	Additional volumes con	ntinued on back of page: Yes or No
	Application Package: Yes or	No
13100-51	1 + cectification - D section	on I should be selective method
83100-67	V formulators -> region (V Cis it on il unregisted	on I should be selective method stoud source neg # incomplete, why?
	These deficiencies have been	approved by EPA.
	The corrections can be faxed	to 703-305-5060/Attn:
	Second Call/Email:	
		ections by, we will process
		y. Please direct all future calls and
	correspondence to the appro	



#### EPA Submission: Rotam Methomyl 29LV

Jennifer Brandon to: Frank Sobotka

Cc: Sree Nair

09/21/2010 10:37 AM

Mr. Sobotka,

This is a follow- up email with regard to your submission in support of the registration of the product Rotam Methomyl 29LV Insecticide (EPA Registration Number: 83100-TBA). As I mentioned in our conversation, I am sending the corrections that need to be made to the studies that support this product:

Study 02 (Volume 03): Enforcement Analytical Method, Laboratory ID: RA714201

The Confidential marking on page 6 and 60 of the study contradict the No Claim of Confidentiality on page 2. You can add a supersede statement on page 2 stating that: "This claim of no confidentiality supersedes all subsequent claims of confidentiality found elsewhere in this report." This will override the confidentiality markings.

Study 03 (Volume 04): Determination of Physical and Chemical Properties, Laboratory ID: RA7142(02-15)

Page 296 was omitted from the study.

The following pages in the study are illegible due to the poor quality of the photocopying: 111, 149, 187, 224, 348, and 415.

If you have any questions or require additional information, please do not hesitate to contact me.

Thanks,

Jennifer Brandon
Data Analyst (EPA Contractor)
2777 S. Crystal Drive
Arlington, VA 22202

Ph: 703-305-0074 Fax: 703-305-5060

Email: brandon.jennifer@epa.gov

Frank Sobotka Resending, wrong spelling of your name. This o... 09/21/2010 10:14:19 AM

From: Frank Sobotka

\*Personal privacy information\*

To: Date: <brandon.jennifer@epa.gov>

09/21/2010 10:14 AM

Subject: FW: Revised Rotam Methomyl 29LV/90SP 8570-34 Form

Resending, wrong spelling of your name. This one should get to you.

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238 PH: 215 497-9501 FX: 215 497-9502

\*Personal privacy information\*

From:

To: brandon.gennifer@epa.gov

Subject: Revised Rotam Methomyl 29LV/90SP 8570-34 Form

Date: Tue, 21 Sep 2010 10:05:40 -0400

See attached revised 8570-34 Form for Both Subject Products. Thanks for your assistance.

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238

PH: 215 497-9501 FX: 215 497-9502

[attachment "Rotam Methomyl 29LV 8570-34 form 09\_08\_10 rev.pdf" deleted by Jennifer Brandon/DC/USEPA/US] [attachment "Rotam Methomyl 90SP 8570-34 form 09\_08\_10 rev.pdf" deleted by Jennifer Brandon/DC/USEPA/US]



RE: EPA Submission: Rotam Methomyl 29LV

Frank Sobotka o Jennifer Brandon

09/21/2010 12:21 PM

History:

This message has been replied to.

I am working on the corrections and will be back to you in a day or two. Need to go back to the lab in china for PC page enlargements.

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238

PH: 215 497-9501 FX: 215 497-9502

```
> Subject: EPA Submission: Rotam Methomyl 29LV
> To:
> CC: Nair.Sree@epamail.epa.gov
                                                        *Personal privacy information*
> From: Brandon.Jennifer@epamail.epa.gov
> Date: Tue, 21 Sep 2010 10:37:20 -0400
> Mr. Sobotka,
> This is a follow- up email with regard to your submission in support of
> the registration of the product Rotam Methomyl 29LV Insecticide (EPA
> Registration Number: 83100-TBA).
> As I mentioned in our conversation, I am sending the corrections that
> need to be made to the studies that support this product:
> Study 02 (Volume 03): Enforcement Analytical Method, Laboratory ID:
> RA714201
> The Confidential marking on page 6 and 60 of the study contradict the
> No Claim of Confidentiality on page 2. You can add a supersede
> statement on page 2 stating that: "This claim of no confidentiality
> supersedes all subsequent claims of confidentiality found elsewhere
> in this report." This will override the confidentiality markings.
> Study 03 (Volume 04): Determination of Physical and Chemical
> Properties, Laboratory ID: RA7142(02-15)
> Page 296 was omitted from the study.
> The following pages in the study are illegible due to the poor
> quality of the photocopying: 111, 149, 187, 224, 348, and 415.
> If you have any questions or require additional information, please do
> not hesitate to contact me.
```

```
> Thanks,
> Jennifer Brandon
> Data Analyst (EPA Contractor)
> 2777 S. Crystal Drive
> Arlington, VA 22202
> Ph: 703-305-0074
> Fax: 703-305-5060
> Email: brandon.jennifer@epa.gov
                                                                 *Personal privacy information*
> From: Frank Sobotka
> To: <brandon.jennifer@epa.gov>
> Date: 09/21/2010 10:14 AM
> Subject: FW: Revised Rotam Methomyl 29LV/90SP 8570-34 Form
> Resending, wrong spelling of your name. This one should get to you.
> Dr. Frank E. Sobotka, Senior Partner
> IPM Resources LLC
> 4032 Crockers Lake Blvd.
> Suite 818
> Sarasota, FL 34238
> PH: 215 497-9501
> FX: 215 497-9502
>
>
                                                           *Personal privacy information*
> From:
> To: brandon.gennifer@epa.gov
> Subject: Revised Rotam Methomyl 29LV/90SP 8570-34 Form
> Date: Tue, 21 Sep 2010 10:05:40 -0400
> See attached revised 8570-34 Form for Both Subject Products. Thanks for
> your assistance.
> Dr. Frank E. Sobotka, Senior Partner
> IPM Resources LLC
> 4032 Crockers Lake Blvd.
> Suite 818
> Sarasota, FL 34238
> PH: 215 497-9501
> FX: 215 497-9502
                                                                                                266
```



RE: EPA Submission: Rotam Methomyl 29LV

Frank Sobotka o Jennifer Brandon

09/27/2010 10:22 AM

See attached missing page and revised Confidentiality Statement page as requested. I am still working with China on the other non-readable pages. Allow me a day or two more and I should have the revised pages. Seems their in the middle of Autumn Festival, a Chinese Holiday, and things are taking longer than usual. Sorry for the delay.

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238

PH: 215 497-9501 FX: 215 497-9502

```
> Subject: EPA Submission: Rotam Methomyl 29LV
> To:
                                                           *Personal privacy information*
> From: Brandon.Jennifer@epamail.epa.gov
> Date: Thu, 23 Sep 2010 15:39:06 -0400
> Mr. Sobotka,
> I will be out of the office tomorrow, 09/24/10. You can sent the
> remaining corrections on Monday,
> Sorry for any inconvenience,
> Jennifer Brandon
> Data Analyst (EPA Contractor)
> 2777 S. Crystal Drive
> Arlington, VA 22202
> Ph: 703-305-0074
> Fax: 703-305-5060
> Email: brandon.jennifer@epa.gov
>
> From: Frank Sobotka
                                                               *Personal privacy information*
> To: Jennifer Brandon/DC/USEPA/US@EPA
> Date: 09/21/2010 12:21 PM
> Subject: RE: EPA Submission: Rotam Methomyl 29LV
                                                                                               267
```

```
>
>
>
> I am working on the corrections and will be back to you in a day or two.
> Need to go back to the lab in china for PC page enlargements.
> Dr. Frank E. Sobotka, Senior Partner
> IPM Resources LLC
> 4032 Crockers Lake Blvd.
> Suite 818
> Sarasota, FL 34238
> PH: 215 497-9501
> FX: 215 497-9502
>
>
> > Subject: EPA Submission: Rotam Methomyl 29LV
> > To:
                                                                 *Personal privacy information*
> > CC: Nair.Sree@epamail.epa.gov
> > From: Brandon.Jennifer@epamail.epa.gov
> > Date: Tue, 21 Sep 2010 10:37:20 -0400
>>
> > Mr. Sobotka,
>>
> > This is a follow- up email with regard to your submission in support
> > the registration of the product Rotam Methomyl 29LV Insecticide (EPA
> > Registration Number: 83100-TBA).
> > As I mentioned in our conversation, I am sending the corrections that
> > need to be made to the studies that support this product:
> > Study 02 (Volume 03): Enforcement Analytical Method, Laboratory ID:
> > RA714201
>>
> > The Confidential marking on page 6 and 60 of the study contradict the
> > No Claim of Confidentiality on page 2. You can add a supersede
> > statement on page 2 stating that: "This claim of no confidentiality
> > supersedes all subsequent claims of confidentiality found elsewhere
> > in this report." This will override the confidentiality markings.
> > Study 03 (Volume 04): Determination of Physical and Chemical
> > Properties, Laboratory ID: RA7142(02-15)
>>
> > Page 296 was omitted from the study.
> > The following pages in the study are illegible due to the poor
> > quality of the photocopying: 111, 149, 187, 224, 348, and 415.
> > If you have any questions or require additional information, please do
> > not hesitate to contact me.
>>
> > Thanks,
>>
> > Jennifer Brandon
                                                                                                   268
```



RE: EPA Submission: Rotam Methomyl 29LV

Frank Sobotka o Jennifer Brandon

09/28/2010 09:36 AM

Attached please find the corrected non-readable pages. To properly correct the issue I had to add one page to each non-readable pages as an extention A of the page number. Again sorry for the delay.

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238

PH: 215 497-9501 FX: 215 497-9502

\*Personal privacy information\*

From:

To: brandon.jennifer@epamail.epa.gov

Subject: RE: EPA Submission: Rotam Methomyl 29LV

Date: Mon, 27 Sep 2010 10:21:51 -0400

See attached missing page and revised Confidentiality Statement page as requested. I am still working with China on the other non-readable pages. Allow me a day or two more and I should have the revised pages. Seems their in the middle of Autumn Festival, a Chinese Holiday, and things are taking longer than usual. Sorry for the delay.

Dr. Frank E. Sobotka, Senior Partner IPM Resources LLC 4032 Crockers Lake Blvd. Suite 818 Sarasota, FL 34238

PH: 215 497-9501 FX: 215 497-9502

> Subject: EPA Submission: Rotam Methomyl 29LV

> From: Brandon.Jennifer@epamail.epa.gov

> Date: Thu, 23 Sep 2010 15:39:06 -0400

> Mr. Sobotka,

\*Personal privacy information\*

```
> remaining corrections on Monday,
> Sorry for any inconvenience,
>
> Jennifer Brandon
> Data Analyst (EPA Contractor)
> 2777 S. Crystal Drive
> Arlington, VA 22202
> Ph: 703-305-0074
> Fax: 703-305-5060
> Email: brandon.jennifer@epa.gov
>
> From: Frank Sobotka
                                                                 *Personal privacy information*
> To: Jennifer Brandon/DC/USEPA/US@EPA
> Date: 09/21/2010 12:21 PM
> Subject: RE: EPA Submission: Rotam Methomyl 29LV
>
>
> I am working on the corrections and will be back to you in a day or two.
> Need to go back to the lab in china for PC page enlargements.
> Dr. Frank E. Sobotka, Senior Partner
> IPM Resources LLC
> 4032 Crockers Lake Blvd.
> Suite 818
> Sarasota, FL 34238
> PH: 215 497-9501
> FX: 215 497-9502
>
>
> > Subject: EPA Submission: Rotam Methomyl 29LV
                                                      *Personal privacy information*
> > CC: Nair.Sree@epamail.epa.gov
> > From: Brandon.Jennifer@epamail.epa.gov
> > Date: Tue, 21 Sep 2010 10:37:20 -0400
>>
> > Mr. Sobotka,
> > This is a follow- up email with regard to your submission in support
> > the registration of the product Rotam Methomyl 29LV Insecticide (EPA
> > Registration Number: 83100-TBA).
> > As I mentioned in our conversation, I am sending the corrections that
                                                                                                 270
```



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

September 15, 2010

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

OPP Decision Number: D-439798

EPA File Symbol or Registration Number: 83100-EI

Product Name: ROTAM METHOMYL 90SP INSECTICIDE

EPA Receipt Date: 14-Sep-2010 EPA Company Number: 83100

Company Name: ROTAM AGROCHEMICAL COMPANY LIMITED

FRANK E. SOBOTKA, PH.D.
IPM RESOURCES LLC
ROTAM AGROCHEMICAL COMPANY LIMITED
7/F CHEUNG TAT CENTRE
4032 CROCKERS LAKE BLVD., STE 818
SARASOTA, FL 43238-

SUBJECT: Receipt of Registration Application Subject to Registration Service Fee

#### Dear Registrant:

The Office of Pesticide Programs has received your application and certification of payment. If you submitted data with this application, the results of the PRN-86-5 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R310

NEW PRODUCT; NON-FAST TRACK (INCLUDES REVIEWS OF PRODUCT CHEMISTRY; ACUTE TOXICITY; PUBLIC HEALTH PEST EFFICACY);

No additional payment is due at this time.

If you have any questions, please contact the Pesticide Registration Service Fee

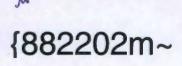
Ombudsman at (703) 308-9362.

Sincerely,

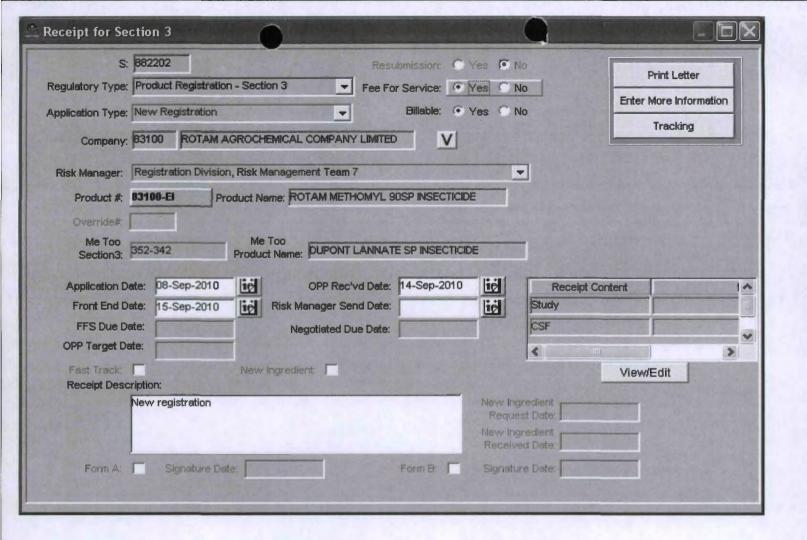
Front End Processing Staff

Information Technology & Resources Management Division

# Fee for Service



This package includes the following	for Division
New Registration	OAD
○ Amendment	○ BPPD ◎ RD
Studies? □ Fee Waiver?	
volpay % Reduction:	Risk Mgr. 7
Receipt No. S-	882202
EPA File Symbol/Reg. No.	83100-EI
Pin-Punch Date:	9/14/2010
This item is NOT subject to	o FFS action.
Action Code:	Parent/Child Decisions:
Requested: R-310	
Granted: R-310	
Amount Due: \$	
Inert Cleared for Intended Use	Uncleared Inert in Product
Reviewer: VMM2 Page	Date: 9/15/10
Reviewer: VVVVI 7 light Remarks:  Formulator's exempts	Date: 9/15/10



# FEE FOR SERVICE

# Pay.Gov Payment Confirmation

From: paygovadmin@mail.doc.twai.gov

Sent: Fri 9/10/10 9:19 AM

To:

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.

Your transaction has been successfully completed.

Transaction Summary

Application Name: PRIA Service Fees

Pay.gov Tracking ID: 251ERTGN Agency Tracking ID: 74137335321

Name On Account: IPM Resources LLC

Transaction Type: ACH Debit Transaction Amount: \$3,213.00 Payment Date: Sep 13, 2010 Account Type: Business Checking

Routing Number: 031000503

Account Number: \*\*\*\*\*\*\*\*\*9541

Transaction Date: Sep 10, 2010 9:19:04 AM

Number of Payments Scheduled: 1

Frequency: OneTime
Decision Number:
Registration Number:

Company Name: Rotam Agrochemical Compan

Company Number: 83100 Action Code: R3100 \*Personal privacy information\*



## Dr. Frank Sobotka@IPMR

From:

<Jamula.John@epamail.epa.gov>

Date:

Tuesday April 20, 2010 3:05 PM

To: Subject:

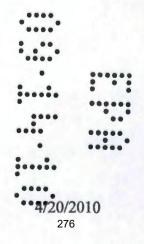
Unused PRIA Payment

\*Personal privacy information\*

I was checking our records and found one payment from Rotam Agrochemical that has not been applied to any actions. Please feel free to reference this the next time that you submit an action. If the fee associated with the action is more than either of these payments, just pay the difference and include copies of both receipts.... JJ>

Amount Pay.Gov ID 83100 ROTAM AGROCHEMICAL COMPANY LIM 1365.00 24V2OBCS 11/06/08

4578 1365 \$3213.00





4032 Crockers Lake Blvd., Suite 818, Sarasota, FL 34238 Phone: (215) 497-9501 Fax: (215) 497-9502

"an intellectual property management resource company"

September 10, 2010

#### VIA UPS EXPRESS

<u>hebert.john@epa.gov</u> [REF. **☎** 1 -703-308-6249]

Document Processing Desk (REGFEE)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501
ATTN: John Hebert PM 7

SUBJECT: Application for Registration - Rotam Methomyl 90SP Insecticide

EPA File Symbol 83100 - EI

#### Dear Mr. Hebert:

The purpose of this letter is to transmit to the Agency on behalf of ROTAM AGROCHEMICAL COMPANY LTD. a "Me Too" application to register Rotam Methomyl 90SP Insecticide. This product is similar or identical in composition and labeling to DuPont Lannate SP (EPA Reg. No. 352-342).

All data to support this registration are included in this submission, or cited using cite-all method of data support, except for two Group B Physical/Chemical Property studies, Storage Stability and Corrosion Characteristics. These two studies will be conducted and a report sent to the Agency upon completetion.

This End Use Product will be formulated using Rotam Methomyl Technical. A Formulator's Exemption Statement has been included in this submission. Please note that an application to support registration of Rotam Methomyl Technical was submitted approximately one week earlier.

John Hebert, PM 7 EPA Registrations Branch September 10, 2010

### SUBJECT: Application for Registration - Rotam Methomyl 90SP Insecticide/ Continued EPA File Symbol 83100 - To be Added

The	following	are er	closed	ın	this	submission:

Administrative Materials: (MRID No.:

- Transmittal Form (EPA Form 8570-1)
- PRIA Prepay Receipt
- Certification With Respect to Citation of Data (EPA Form 8570-34)
- Data Matrix (EPA Form 8570-35) w/Redacted version
- Formulator's Exemption Statement (EPA Form 8570-27)
- Confidential Statement of Formula (EPA Form 8570-4), 2 Extra Copies
- Draft Labeling Rotam Methomyl 90SP Insecticide, 5 Copies
- Three copies each of the following:

VOLUME NO.	DESCRIPTION	OPPTS GUIDELINE REF. NO.	MRID NO.
1-R	Product Identity & Disclosure of Ingredients, Including Manufacturing Process & Discussion of Formation of Impurities/Rotam Methomyl 90SP Insecticide [Report No.: METHMYL 90SP]	Group A 830.1550 830.1600 830.1650 830.1670	
2	VOLUME 2 NOT SUBMITTED		
3	Enforcement Analytical Method (Active Ingredient Content)/ Rotam Methomyl 90SP Insecticide[Report No.:SOP20458-III]	830.1800	

John Hebert, PM 7 EPA Registrations Branch September 10, 2010

## SUBJECT:Application for Registration - Rotam Methomyl 90SP Insecticide/ Continued EPA File Symbol 83100 - To be Added

4	Determination of Physical and Chemical Properties of Rotam Methomyl 90SP Insecticide [Report No.: 22381]	Group B 830.6302 830.6303 830.6304 830.6313 830.6314 830.7000 830.7050	Part of the State of the Part of
5	THIS VOLUME 5 NOT SUBMITTED		
6	Acute Toxicology Studies Rotam Methomyl 90SP Insecticide [Report No.: 2918 to 2923]	870.1100 870.1200 870.1300 870.2400 870.2500 870.2600	

We appreciate your assistance with this Application. If you have any questions or need additional information, please do not hesitate to contact us at any time.

Sincerely yours,

Senior Partner

IPM Resources LLC (Agent)

ATT:



**United States** 

# **Environmental Protection Agency**

Registration
Amendment
Other

**OPP Identifier Number** 

VLIA	Washington, DC 204	00	ther					
	Applicatio	n for Pesticide - Section I						
1. Company/Product Number	emical Company Ltd / 83100 —	2. EPA Product Manager John Hebert	3. Proposed Classification					
4. Company/Product (Name	)	PM#	None Restricted					
Rotam Methomyl 90SI	Insecticide	7	7					
5. Name and Address of Ap ROTAM Agrochemical Comp C/O IPM Resources LLC (Ag 4032 Crockers Lake Blvd., S Sarasota, FL 34238	pany Limited	· · · · · · · · · · · · · · · · · · ·	accordance with FIFRA Section 3(c)(3) or identical in composition and labeling  - annate SP					
		Section - II						
Explanation: Use addition Submission of request for New "me-too" End-use For Chemistry/Acute Tox. So	nel page(s) if necessary. (For section registration and Service Fee (PRicegistration Application (EPA PRIA ervice Fee: \$4,578. Product: Rotanony Limited, c/o IPM Resources	IA-2003) verification. No.: R310) Formulator's Exemption, Nam Methomyl 90SP Insecticide (EPA R LCC (Agent), 4032 Crockers Lake Blvc	lon-fast Track/6 Month Review of Product eg. No.: 83100- To be Added). Contact: l., Suite 818, Sarasota, FL 34238 Email:					
	Ph: 215 497-9501 FAX: 215 49	<sup>97-9502</sup> *Personal privac	y information*					
		Section - III						
1. Material This Product Wi Child-Resistant Packaging Yes No Certification must be submitted	Unit Packaging  Yes  No  If "Yes" Unit Packaging wgt. 24/12/10 lb bag  No. per container 24/6/4 /case	Yes No  If "Yes" Package wgt 0.5/2/5 lbs/bag  No. per container 1/1/2 /bag	Type of Container  Metel  Plastic Glass Paper Other (Specify)					
3. Location of Net Contents  [✓ Label [ ] (	Information 4. Size(s) Reta	5. Locati	on of Labal Directions					
6. Menner in Which Label is Printed or		aph Other glued ed						
		Section - IV						
1. Contact Point (Complete	items directly below for identification	n of individual to be contacted, if necessa	ry, to process this application.)					
Name Frank E. Sobotka, Ph.I		Title Agent	Telephone No. (Include Area Code) 215 497-9507°°°.					
	y knowlinglly false or misleading stat	tion all attachments thereto are true, accurate tement may be punishable by fine or impi						
2. Signature	Jefoth	Agent						
4. Type Name Frank E. Sobotka, Ph.		September 08, 2010	••••					



United States

#### Environmental Protection Agency Weshington, DC 20480

# Formulator's Exemption Statement

Applicant's Name and Address		
<b>ROTAM AGROCHEMICAL</b>	COMPANY LIMITED	

C/O IPM Resources LLC 4032 Crockers Lake Blvd.

Suite 818

Sarasota, FL 34238

+ U.S. GPO: 1995-399-420/20413

EPA File Symbol/Registration Number

83100 - To be Added

**Product Name** 

Rotam Methomyl 90SP Insecticide

Date of Confidential Statement of Formula (EPA Form 8570-4)

November 09, 2009

As an authorized representative of the applicant for registration of the product identified above, I certify that:

- (1) This product contains the following active ingredient(s): METHOMYL
- (2) Of these, each active ingredient listed in paragraph (4) is present solely as the result of the use of that active ingredient in the manufacturing, formulation or repackaging another product which contains that active ingredient which is registered under FIFRA Section 3, is purchased by us from another producer, and is labeled for at least each use for which my product is proposed to be labeled.
- (3) Indicate by checking (A) or (B) below which paragraph applies:
- (A) An accurate Confidential Statement of Formula (EPA FORM 8570-4) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).
- (B) The Confidential Statement of Formula (CSF) (EPA Form 8570-4) referenced above and on file with the EPA is complete, current, and accurate and contains the information required on the current CSF.
- (4) The following active ingredients in this product qualify for the formulator's exemption.

Source						
Active Ingredient	Product Name	Registration Number				
METHOMYL *Product	ingredient source information may be en	ntitled to confidential treatment*				
A Form 8570-27 (Rev. 8-95)	Name and Title Frank E. Sobotka, Ph.D. (Agent)	Date 11/10/89				



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 401 M Street, S.W. WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20480.

Ceruncation with Respec	t to Citation of	Data			
Applicant's/Registrant's Name. Address. and Telephone Number Rotum Agrechantical Company Ltd., ato IPM Resources LLC (Agent), 600 Newtown-Yantiey Rd., Sto 105 Newtown, PA 1804	0 218 407-0501	EPA Registration Number/File Symbol 83100 - TBA			
Active Ingredient(s) and/or representative test compound(s) METHOMYL	Part 158)  Product Name ROTAM METHOMYL 90SP INSECTION  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered product labeled for all the same uses on your label, you do PA Form 8570-27).  Registered				
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 15 TERRESTRIAL FOOD CROP	(8)	ROTAM METHOMYL 90SP INSECTICIDE			
NOTE: If your product is a 100% repackaging of another purchased EPA-registe submit this form. You must submit the Formulator's Exemption Statement (EPA Formulator's Exemption Statement)		for all the same uses on your label, you do not need to			
I am responding to a Data-Call-In Notice, and have included with this form be used for this purpose).	a list of companies s	ent offers of compensation (the Data Matrix form should			
SECTION I: METHOD OF DATA SUP	PORT (Check one	nethod only)			
I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).	under the	ng the selective method of support (or cite-all option e selective method), and have included with this form a ad list of data requirements (the Data Matrix form must I			
SECTION II: GENERAL	OFFER TO PAY				
I reducely office acid agrees to pay compensation, to other persons, with regard	to the approval of thi	s application, to the extent required by FIFRA.			
		s application, to the extent required by FIFRA.			
	this Data-Call-in resign addition, if the cite at (1) concern the pin is a type of data the light the initial registration, the or reregistration, the study in support of (1) I have notified in w (c)(2)(B) of FIFRA; a piles of all offers to pin be submitted to the on to deny, cancel or ments to it are true.	conse is supported by all data submitted or cited in the selective method is operties or effects of this product or an identical or at would be required to be submitted under the data ation of a product of identical or similar composition and that I am the original data submitter or that I have obtained this application; (c) all periods of eligibility for riting the company that submitted the study and have and (ii) to commence negotiations to determine the analysis of their delivery in Agency upon request. Should I fall to produce such suspend the registration of my product in conformity with accurate, and complete. I acknowledge that any			

282

End Use (EP) or Manufacturing Use (MP) product or Technical Grade of the Active Ingredient (TGAI). Must submit Group A and B product chemistry data for each proposed product unless it's a 100% identical (repack): YES or NO (circle one)

Guideline	Group A: Product Chemistry Data		EP Data Submitted		MP Data Submitted		
No.	Study Title	Yes	No	Yes	No	Yes	No
830.1550	Product Identity & Composition	/					
830.1600	Description of materials used to produce the product	/					
830.1650	Description of formulation process	1					
830.1670	Discussion on the formation of impurities	/					
830.1700	Preliminary analysis		/				
830.1750	Certified limits (158.345) (CSF)	/					
830.1800	Enforcement analytical method	/					

Guideline	Group B: Product Chemistry Data Study	EP Do		MP D Subn		TGAI	
No.	Title	Yes	No	Yes	No	Yes	No
830.6302	Color	/					
830.6303	Physical State	1					
830.6304	Odor	/					
830.6313	Stability to normal and elevated temperatures metal and metal ions						
830.6314	Oxidation/Reduction (Chemical incompatibility)	/					
830.6315	Flammability		V				
830.6316	Explodability		V				
830.6317	Storage stability	V					
830.6319	Miscibility		V	1			
830.6320	Corrosion Characteristics		/				
830.6321	Dielectric Breakdown Voltage		/				
830.7000	рН	/					
830.7050	UV/ Visible Absorption						
830.7100	Viscosity		V				
830.7200	Melting Point						
830.7220	Boiling Point		The Car				
830.7300	Density (listed as 830.7050 in datamamx)	V					
830.7370	Dissociation Constant			F			
830.7550	Partition Coefficient						
830.7840	Water Solubility						
830.7950	Vapor Pressure			1350			

Grayed out = data not required

<sup>\*</sup> see data manix footnoter

<sup>\*</sup> registrant states that this product properties are such that none of their suidelines apply to the product.

## R 310

New products must either: 1) supply the product specific acute toxicity 6 pack data (listed below), or 2) provide a bridging rationale document. The bridging document directs OPP to use a currently registered set of 6 acute toxicity data and label; instead of submitting product specific data.

Guideline No.	Acute toxicity (6 pack)	Data submi	Ited	Cited		
	Study Title	Yes	No	Yes	No	
870.1100	Acute Oral (LD50)	/				
870.1200	Acute Dermal (LD50)	/				
870.1300	Acute Inhalation (LC50)	/				
870.2400	Acute Eye Irritation	V				
870.2500	Acute Dermal Irritation	V				
870.2600	Dermal Sensitization	/				

Efficacy – which guideline is used depends on the proposed label use NOT Submitted

Guideline No.			Data submitted		ed		
	Study Title	Yes	No	Yes	No	Comments	
810.3100	Soil Treatments for Imported Fire Ants		/	1111	V		
810.3200	Livestock, Poultry, Fur and Wool-Bearing Animal Treatments		/		V		
810.3300	Treatments to Control Pests of Humans and Pets		/		V		
810.3400	Mosquito, Black Fly, and Biting Midge (Sand Fly) Treatments		/		V		
810.3500	Premises Treatments		1		/		
810.3600	Structural Treatments		/		V		
810.3800	Methods for Efficacy Testing of Termite Baits		V		V		

Form Approved OMB No. 2070-0060

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 401 M STREET, S.W. WASHINGTON, D.C. 20460

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		DATA MATRIX	(			
Date September 08, 2010			EPA Reg. No./File Symbol 8	Page 1 of		
Applicant's/Registrant's Name & Address  ROTAM AGROCHEMICAL COMPANY LIMITED C/O IPM Resources LLC (Agent) 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238		Product ROTAM METHOMYL 90SP INSECTICIDE				
Ingredient METHOMYL					T	
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note	
Group A - Product Identity,	Composition and Analysis Test Guidelines					
830.1550	Product Identity Composition		ROTAM AGROCHEMICAL COMPANY L	D OWN	See Volume 1; CSF 11/09/09	
830.1600	Description of Materials		ROTAM AGROCHEMICAL COMPANY L	D OWN	See Volume 1	
830.1650	Description of Formulation Process		ROTAM AGROCHEMICAL COMPANY L	D OWN	See Volume 1	
830.1670	Discussion of Formation of Impurities		ROTAM AGROCHEMICAL COMPANY L	D OWN	See Volume 1	
830.1700	Preliminary Analysis			NA		
830.1750	Certified Limits		ROTAM AGROCHEMICAL COMPANY L	D OWN	CSF 11/09/09	
830.1800	Enforcement Analytical Methods		ROTAM AGROCHEMICAL COMPANY L	D OWN	See Volume 3	
830.1900	Submittal of Samples			NA NA		
Group B - Physical/C	hemical Properties Test Guidelines					
830.6302	Color		ROTAM AGROCHEMICAL COMPANY L	D OWN	See Volume 4	
830.6303	Physical State		ROTAM AGROCHEMICAL COMPANY L	D OWN	See Volume 4	
830.6304	Odor		ROTAM AGROCHEMICAL COMPANY LT	D OWN	See Volume 4	
Signature	19 080	••	Name and Title Frank E. Sobotka, Ph.	D. Agent	Date 09/08/2010	

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 401 M STREET, S.W. WASHINGTON, D.C. 20460

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		DATA M	ATRIX	·		
Date September 08, 2010			EPA Reg. No./File Symbol 83100 - TBA		Page 2 of 6	
Applicant's/Registrant's Name & Address  ROTAM AGROCHEMICAL COMPANY LIMITED C/O IPM Resources LLC (Agent) 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238		TED	Product ROTAM METHOMYL 90SP INSECTICIDE			
ngredient METHOMYL						
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note	
Group B - Physical/Chemic	al Properties Test Guidelines (Continued)					
830.6313	Stability		ROTAM AGROCHEMICAL COMPANY LTD	OWN	See Volume 4	
830.6314	Oxidization/Reduction		ROTAM AGROCHEMICAL COMPANY LTD	OWN	See Volume 4	
830.6315	Flammability			NA	Footnote 1	
830.6316	Explodability			NA	Footnote 2	
830.6317	Storage Stability			NA	Footnote 3	
830.6316	Viscosity			NA	Footnote 4	
830.6319	Miscibility			NA	Footnote 4	
830.6320	Corrosion Characteristics			NA	Footnote 3	
830.6321	Dielectric Breakdown Voltage			NA	Footnote 5	
830.7000	рН		ROTAM AGROCHEMICAL COMPANY LTD	OWN	See Volume 4	
830.7050	Density/Relative Density		ROTAM AGROCHEMICAL COMPANY LTD	OWN	See Volume 4	
Signature	: 19 Och		Name and Title Frank E. Sobotka, Ph.D. Agent		Date 09/08/2010	

Form Approved OMB No. 2070-0060

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#### DATA MATRIX Page 3 of 6 Date September 08, 2010 EPA Reg. No./File Symbol 83100 - TBA **Product** Applicant's/Registrant's Name & Address **ROTAM AGROCHEMICAL COMPANY LIMITED ROTAM METHOMYL 90SP INSECTICIDE** C/O IPM Resources LLC (Agent) 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238 Ingredient METHOMYL Guideline Reference Number Guideline Study Name **MRID Number** Submitter Status Note **Group A - Acute Toxicity Test Guidelines** 870.1100 Acute Oral Toxicity - Rat ROTAM AGROCHEMICAL COMPANY LTD OWN See Volume 6 870.1200 OWN See Volume 6 Acute Dermal Toxicity - Rat **ROTAM AGROCHEMICAL COMPANY LTD** 870,1300 Acute Inhalation Toxicity - Rat ROTAM AGROCHEMICAL COMPANY LTD OWN See Volume 6 870.2400 Acute Eye Irritation - Rabbit ROTAM AGROCHEMICAL COMPANY LTD OWN See Volume 6 870.2500 Acute Dermal Irritation - Rabbit ROTAM AGROCHEMICAL COMPANY LTD OWN See Volume 6 870.2600 Skin Sensitization ROTAM AGROCHEMICAL COMPANY LTD OWN See Volume 6 Signature Frank E. Sobotka, Ph.D. Agent Name and Title Date 09/08/2010 EPA Form 9870-95 (9-97) Electronic and Rand versions available. Submit only Paper version. Agency Internal Use Copy

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		EPA Reg. No./File Symbol 81598 - TBA		Page 4 of 6				
Applicant's/Registrant's Na	ROTAM LTD C/O IPM Resources LLC (Agent) 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238		Product  ROTAM METHOMYL 90SP INSECTICIDE		Product			
ngredient METHOMYL								
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note			
	Generic Data [FORMULATOR'S EXEMPTION]	CITE - ALL	E. I. DU PONT DE NEMOURS AND CO., INC. DUPONT CROP PROTECTION (S300/427) PO BOX 30 NEWARK, DE 19714-0030	PAY				
			BAYER CROPSCIENCE LP 2 T.W. ALEXANDER DRIVE RESEARCH TRIANGLE PARK, NC 27709					
			FARNAM COMPANIES INC D/B/A CENTRAL LIFE SCIENCES 301 WEST OSBORN ROAD PHOENIX, AZ 85013					
			WELLMARK INTERNATIONAL 1501 E. WOODFIELD ROAD SUITE 200 WEST SCHAUMBURG, IL 60173					
	•		DENKA INTERNATIONAL 4 TAR ROCK ROIAD WESTPORT, CT 06880					
			BURLINGTON SCIENTIFIC CORPORATION 71 CAROLYN BLVD FARMINGDALE, NY 11735					
			SPRAY DRIFT TASK FORCE MCKENNA, LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006					
	-		AGRICULTURAL REENTRY TASK FORCE 1350 I STREET, N.W. WASHINGTON, DC 20005					
Signature	200 1000		Name and Title Frank E. Sobotka, Ph.D. Ag	gent	Date 09/08/2010			

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Applicant's/Registrant's Name & Address ROTAM LTD  C/O IPM Resources LLC (Agent)  4032 Crockers Lake Blvd., Suite 818  Sarasota, FL 34238			Product  ROTAM METHOMYL 90SP INSECTICIDE		
Ingredient METHOMYL					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
	Generic Data [FORMULATOR'S EXEMPTION]	CITE - ALL	TROY BIOSCIENCES INCORPORATED C/O TROY CORPORATION 8 VREELAND ROAD FLORHAM PARK, NJ 07932	PAY	
			GLADES FORMULATING CORP 30856 ROCKY ROAD GREELEY, CO 80631-9375		
			AGRICULTURAL HANDLERS EXPOSURE TASK FORCE PO BOX 509 MACON, MO 63552		
			FIFRA ENDANGERED SPECIES TASK FORCE, L C/O HAROLD HIMMELMAN (BEVERIDGE & DIAMOND) 1350 1 STREET, NW WASHINGTON, DC 20005		
			RESIDENTIAL EXPOSURE JOINT VENTURE 900 17TH STREET, NW, SUITE 300 WASHINGTON, DC 20006		
			NOVARTIS ANIMAL HEALTH US, INC. 3200 NORTHLINE AVENUE, SUITE 300 GREENSBORO, NC 27408		
Signature	<del>-</del>		Name and Title Frank E. Sobotka, Ph.D. Agent		Date
Na	35 (9-97) Electronic and Paper versions available. Submit or		Agency Inter		09/08/201

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	DATA MATRIX		
Date September 08, 2010		EPA Reg. No./File Symbol 83100 - TBA	Page 6 of 6
Applicant's/Registrant's Name & Address	ROTAM AGROCHEMICAL COMPANY LIMITED C/O IPM Resources LLC 4032 Crockers Lake Bivd., Suite 818 Sarasota, FL 34238	Product  ROTAM METHOMYL 90SP INSECT	'ICIDE

#### FOOTNOTES:

- 1. Contains no flammable ingredients
- 2. Not potentially explosive.
- 3. One year Commercial Stability (830.6317) and Corrosion Characteristics (830.6320) will be conducted and a report sent to the USEPA upon completion.
- 4. Product is a solid.
- 5. Not registered for use around electrical power boxes

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Applicant's/Registrant's Name & Address ROTAM AGROCHEMICAL COMPANY LIMITED C/O IPM Resources LLC (Agent) 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238				Product ROTAM METHOMYL 90SP INSECTICIDE		
Ingredient METHOMYL						
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter		Status	Note
			ROTAM AGR	OCHEMICAL COMPANY LTD	OWN	See Volume 1; CSF 11/09/09
			ROTAM AGR	OCHEMICAL COMPANY LTD	OWN	See Volume 1
			ROTAM AGR	OCHEMICAL COMPANY LTD	OWN	See Volume 1
			ROTAM AGR	OCHEMICAL COMPANY LTD	OWN	See Volume 1
					NA	
			ROTAM AGR	OCHEMICAL COMPANY LTD	OWN	CSF 11/09/09
			ROTAM AGR	OCHEMICAL COMPANY LTD	OWN	See Volume 3
					NA	
			ROTAM AGR	OCHEMICAL COMPANY LTD	OWN	See Volume 4
			ROTAM AGR	OCHEMICAL COMPANY LTD	OWN	See Volume 4
			ROTAM AGR	OCHEMICAL COMPANY LTD	OWN	See Volume 4
Signature	10 Post.		Name and Title	Frank E. Sobotka, Ph.D. A	gent	Date 09/08/2010

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Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note	
			ROTAM AGROCHEMICAL COMPANY LTD	OWN	See Volume 4	
			ROTAM AGROCHEMICAL COMPANY LTD	OWN	See Volume 4	
				NA	Footnote 1	
				NA	Footnote 2	
				NA	Footnote 3	
				NA	Footnote 4	
				NA	Footnote 4	
				NA	Footnote 3	
				NA	Footnote 5	
			ROTAM AGROCHEMICAL COMPANY LTD	OWN	See Volume 4	
			ROTAM AGROCHEMICAL COMPANY LTD	OWN	See Volume 4	
Signature			Name and Title		Date	
Signature Signature	onic and Paper versions available. Submit	only Paner version	Name and Title Frank E. Sobotka, Ph.D. Agent	Agenm	Date 09/08/2010	

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#### DATA MATRIX EPA Reg. No./File Symbol 83100 - TBA Page 3 of 6 Date September 08, 2010 **Product** Applicant's/Registrant's Name & Address **ROTAM AGROCHEMICAL COMPANY LIMITED ROTAM METHOMYL 90SP INSECTICIDE** C/O IPM Resources LLC (Agent) 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238 Ingredient METHOMYL Guideline Reference Number Guideline Study Name MRID Number Submitter Status Note ROTAM AGROCHEMICAL COMPANY LTD OWN See Volume 6 OWN See Volume 6 ROTAM AGROCHEMICAL COMPANY LTD ROTAM AGROCHEMICAL COMPANY LTD OWN. See Volume 6 ROTAM AGROCHEMICAL COMPANY LTD OWN See Volume 6 ROTAM AGROCHEMICAL COMPANY LTD OWN See Volume 6 ROTAM AGROCHEMICAL COMPANY LTD OWN See Volume 6 Signature Name and Title Frank E. Sobotka, Ph.D. Agent Date 09/08/2010 EPA Form 8570-35 (9-97) Electronic and Paper versions available. Submit only Paper version. Agency Internal Use Copy

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Guideline Reference lumber	Guideline S	Study Name	MRID Number	Submitter	Status	Note
				E. I. DU PONT DE NEMOURS AND CO., INC. DUPONT CROP PROTECTION (S300/427) PO BOX 30 NEWARK, DE 19714-0030	PAY	
				BAYER CROPSCIENCE LP 2 T.W. ALEXANDER DRIVE RESEARCH TRIANGLE PARK, NC 27709		
				FARNAM COMPANIES INC D/B/A CENTRAL LIFE SCIENCES 301 WEST OSBORN ROAD PHOENIX, AZ 85013		
				WELLMARK INTERNATIONAL 1501 E. WOODFIELD ROAD SUITE 200 WEST SCHAUMBURG, IL 60173		
				DENKA INTERNATIONAL 4 TAR ROCK ROIAD WESTPORT, CT 06880		
				BURLINGTON SCIENTIFIC CORPORATION 71 CAROLYN BLVD FARMINGDALE, NY 11735		
				SPRAY DRIFT TASK FORCE MCKENNA, LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006		
				AGRICULTURAL REENTRY TASK FORCE 1350 I STREET, N.W. WASHINGTON, DC 20005		
ignature	3.	Stoller		Name and Title Frank E. Sobotka, Ph.D. Ag	gent	Date 09/08/2010

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Applicant's/Registrant's Name & Address ROTAM LTD C/O IPM Resources LLC (Agent) 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238		nt) • 818	Product  ROTAM METHOMYL 90SP INSECTICIDE			
Ingredient METHOMYL						
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note	
			TROY BIOSCIENCES INCORPORATED C/O TROY CORPORATION 8 VREELAND ROAD FLORHAM PARK, NJ 07932	PAY		
			GLADES FORMULATING CORP 30856 ROCKY ROAD GREELEY, CO 80631-9375			
			AGRICULTURAL HANDLERS EXPOSURE TASK FORCE PO BOX 509 MACON, MO 63552			
			FIFRA ENDANGERED SPECIES TASK FORCE, L C/O HAROLD HIMMELMAN (BEVERIDGE & DIAMOND) 1350 I STREET, NW WASHINGTON, DC 20005			
			RESIDENTIAL EXPOSURE JOINT VENTURE 900 17TH STREET, NW, SUITE 300 WASHINGTON, DC 20006			
			NOVARTIS ANIMAL HEALTH US, INC. 3200 NORTHLINE AVENUE, SUITE 300 GREENSBORO, NC 27408			
Signature	Zin Stock		Name and Title Frank E. Sobotka, Ph.D. Agent		Date 09/08/201	

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		Product	
Applicant's/Registrant's Name & Address  ROTAM AGROCHEMICAL COMPANY LIMITE C/O IPM Resources LLC 4032 Crockers Lake Blvd., Suite 818 Sarasota, FL 34238		ROTAM METHOMYL 90SP INSECTI	CIDE



## RESTRICTED USE PESTICIDE

**Due to High Acute Toxicity to Humans** 

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient	
Methomyl	
(S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)	90%
Inert Ingredients	10%
TOTAL	100%

EPA Reg. No. 83100 - TBA

EPA Est. No.: TBA

# DANGER POISON

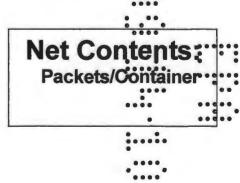


### **PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions for Use on inside booklet.

Manufactured by:
Rotam Agrochemical Company Ltd.
7/F Cheung Tat Centre
18 Cheung Lee Street
Chai Wan, Hong Kong
1-866-927-6826



## RESTRICTED USE PESTICIDE

**Due to High Acute Toxicity to Humans** 

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GROUP

1A

INSECTICIDE

Rotam Methomyl 90SP Insecticide

In Water Soluble Packets

KEEP OUT OF REACH OF CHILDREN DANGER POISON



### **PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

#### **FIRST AID**

(N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** FATAL IF SWALLOWED. MAY BE FATAL IF INHALED OR GETS IN EYES. DO NOT BREATHE DUST OR SPRAY MIST.

Do not get in eyes or on clothing. Wear protective eyewear and respirator. Harmful if absorbed through skin. Avoid contact with skin. Wash hands thoroughly with soap and water after handling.

**POISONING SYMPTOMS:** Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section on the ROTAM METHOMYL 90SP label and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT:** Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Refer to inside label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations, Engineering Controls Statements, Environmental Hazards and Directions For Use.

### Water Soluble Powder In Water Soluble Bags Active Ingredient

Methomyl

(S-methyl-N-[(methylcarbamoyl)

oxy|thioacetimidate) 90%
Inert Ingredients 10%

TOTAL 100%

EPA Reg. No. 83100 - TBA

EPA Est. No.: TBA

Manufactured by:
Rotam Agrochemical Company Ltd.
7/F Cheung Tat Centre
18 Cheung Lee Street
Chai Wan, Hong Kong
1-866-927-6826

Net Contents:
Packets/Container

### [Inside Booklet page 2]

### **Table of Contents**

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**Spray Preparation** 

Application

Spray Drift Management

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Storage and Disposal

Notice of Warranty

# PRECAUTIONARY STATEMENTS (Continued) HAZARDS TO HUMAN AND DOMESTIC ANIMALS DANGER

#### PERSONAL PROTECTIVE EQUIPMENT

#### Applicators and others exposed to the diluted spray solution must wear:

- · Long-sleeved shirt and long pants.
- Chemical resistant gloves such as barrier laminate or butyl rubber.
- · Shoes plus socks.
- Protective eyewear.

# Mixers, loaders, cleaners, repairers of application equipment, and others exposed to the concentrate must wear:

- Long sleeve shirt and long pants.
- · Chemical-resistant gloves, such as barrier laminate or butyl rubber.
- · Socks and chemical resistant footwear.
- Protective eyewear.
- Respirator as outlined below.
- · Chemical resistant apron.

For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or a canister with any R, P, or HE prefilter.

For exposures outdoors, Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any R, P, or HE prefilter. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **ENGINEERING CONTROL STATEMENTS**

#### Human flaggers must be in enclosed cabs.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

The enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets are permitted to wear long-sleeved shirt, long pants, shoes plus socks, chemical-resistant gloves, and chemical-resistant apron, provided the other required PPE is immediately available in case the bag is opened.

Pilots must not assist in the mixing and loading operations.

# USER SAFETY RECOMMENDATIONS Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product.
- · Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

# DIRECTIONS FOR USE Restricted Use Pesticide

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). REI Summary: REI grapes = 7 day; REI peaches = 4 day; REI apple, cotton, grapefruit, lemon, nectarine, orange, tangelo, tangenne = 3 day; all other WPS uses = 48 hour REI.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber), all >14 mils
- Shoes plus socks
- Protective eyewear

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Notify workers of the application to grapes by warning them orally <u>and</u> by posting warning signs at entrances to treated areas.

#### GENERAL INFORMATION

Chemigation: Overhead sprinkler chemigation is allowed for use in alfalfa, barley, oats, onions, potatoes, rye, sugar beets, and wheat. Refer to supplemental, or Special Local Need (SLN) labeling or the crop specific sections of this label for use directions for chemigation. Do not apply this product through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN or this product label.

Do not formulate this product into other End-use products without written permission from Rotam.

ROTAM METHOMYL 90SP insecticide should be used only in accordance with directions for use on this label or in separate Rotam supplemental labeling. Rotam will not be responsible for use of the product in a manner not specified by Rotam in the product's labeling and User assumes all risk for such use.

ROTAM METHOMYL 90SP is a dry powder to be dissolved in water for application by mechanical ground, overhead sprinkler, or aerial application Handheld equipment is prohibited for application to crops.

Do not apply by ground equipment within 25 feet, or by air within 100 feet of lakes, reservoirs, rivers, estuaries, commercial fish ponds and natural, permanent streams, marshes or natural, permanent ponds. Increase the buffer zone to 450 feet from the above aquatic areas when ultra low volume application is made.

Pilots must not assist in the mixing and loading operations.

Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened and public entry as a "U-Pick", "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval and preharvest interval for the crop stated elsewhere on this label must be followed.

#### SCOUTING

Monitor insect populations to determine whether or not there is a need for application of ROTAM METHOMYL 90SP based on locally determined economic thresholds. More than one treatment of ROTAM METHOMYL 90SP may be required to control a population of pests.

#### **BENEFICIAL ANTHROPODS**

ROTAM METHOMYL 90SP at rates of 1/8 to 1/4 lb. per acre helps conserve certain beneficials, including big-eyed bugs, damsel bugs, flower bugs and spiders in cotton and soybeans. While these beneficials cannot be relied upon to control pests, they are of potential value and should be monitored along with pests in pest management programs on these crops.

#### RESISTANCE MANAGEMENT

For resistance management, ROTAM METHOMYL 90SP insecticide is a group 1A insecticide. Repeated and exclusive use of ROTAM METHOMYL 90SP or other group 1A insecticides may lead to the build-up of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group may be an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. When this occurs, the recommended dosages fail to suppress the pest population below the economic threshold. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. These strategies may include incorporation of cultural and biological control practices, alternation of active classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area. For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org.

#### INTEGRATED PEST MANAGEMENT

This product should be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Application of this product should be based on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating

when target pest portlations reach locally determined action resholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

#### SPRAY PREPARATION

Spray equipment must be clean and free of previous pesticide deposits before applying ROTAM METHOMYL 90SP.

Fill spray tank 1/4 to 1/2 full of water. Add ROTAM METHOMYL 90SP directly to spray tank. Carefully open the outer barrier bag containing ROTAM METHOMYL 90SP in a water soluble bag. Do not cut open the outer barrier bag. Invert the outer barrier bag allowing the inner water soluble bag to fall directly into the spray tank. Do not allow packets to become wet prior to adding to the spray tank. Do not handle, open, rip, tear, cut or perforate the inner water soluble bag. Mix thoroughly to fully dissolve the insecticide; once dissolved continued agitation is not required. Use mechanical or hydraulic means; do not use air agitation. Be sure the soluble packet is completely dissolved before adding any other ingredients. Spray mix should not be stored overnight in spray tank.

Compatibility: Since formulations may be changed and new ones introduced, it is recommended that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures.

Do not use ROTAM METHOMYL 90SP with Bordeaux mixture (copper sulfate and hydrated lime), Du Ter triphenyltin hydroxide, lime sulfur, Rayplex iron or in highly alkaline solutions. Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity.

Tank-mix solutions containing Boron may affect solubility of the water soluble film. When using Boron containing solutions in a tank-mix, follow these procedures:

- Add the correct amount of ROTAM METHOMYL 90SP water soluble packets first
- -Be sure the soluble packets are completely dissolved
- -Introduce Boron containing solutions last

If the above procedure cannot be followed, and Boron is an essential part of the spray mix, substitute ROTAM METHOMYL LV formulation for the water soluble packets.

**Tank Mix Sequence:** Add different formulation types in the sequence indicated below. Allow time for complete mixing and dispersion after addition of each product.

- ROTAM METHOMYL 90SP and other products in water soluble bags.
- 2. Water dispersible granules
- 3. Wettable powders
- 4. Water based suspension concentrates
- 5. Water soluble concentrates
- 6. Oil based suspension concentrates
- 7. Emulsifiable concentrates
- 8. Adjuvants, surfactants, oils
- 9. Soluble fertilizers
- 10. Drift retardants

Follow local practice and manufacturer's recommendation.

**APPLICATION** 

Apply at the recommended rates when insect populations reach locally determined economic thresholds. Consult the cooperative extension service, professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Follow-up treatments of ROTAM METHOMYL 90SP should be applied, as needed, to keep pest populations within threshold limits. On most crops, ROTAM METHOMYL 90SP should be applied at 5 to 7 day intervals to maintain control. Refer to crop specific directions for use in the crop tables for more specific information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. Since ROTAM METHOMYL 90SP is a fast acting contact insecticide, best results follow direct spraying of the target insect.

For aerial, use a minimum of 2 gals. per acre (gpa) except 10 gpa for grapes, peaches, and nectarines; 15 gpa for oranges, lemons, grapefruit, tangelos and tangerines.

For certain crops a minimum of 1 gallon per acre may be used providing the following conditions are met:

- equipment is adjusted to distribute spray uniformly over the spray swath,
- -wind conditions and other factors such as temperature and humidity are such that the spray is delivered to the target area,
- -local regulations do not prohibit low-volume aerial sprays,
- -use rates are applied as directed on the package label or supplemental labeling for the following crops:

Alfalfa Celerv Peas (succulent) **Peppermint** Anise Collards Corn **Peppers** Asparagus Barley Cotton Potato Cucumber Rye Beans Sóvbean Broccoli Lettuce Melons Spinach Brussels sprouts Sugar beet Cabbage Mint Carrot Oats Summer Squash Cauliflower **Peanuts** Wheat

Apply the low rates on small plants, small insects and light infestations of insects. Use intermediate rates on large insects and heavier infestations of insects. Use 1 to 3 applications of the highest recommended rate for controlling severe infestations. Thereafter, use the lowest rate possible to maintain control.

#### **SPRAY TANK CLEANOUT**

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.

Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water.

Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

#### CHEMIGATION

Instructions for the Use of ROTAM METHOMYL 90SP on Alfalfa, Barley, Oats, Green and Dry Bulb Onions, Potatoes, Rye, Sugar Beets and Wheat

Using Overhead Spainkler Chemigation
Overhead chemigation applications offer the advantage of greater penetration and coverage of the target plant. However, typical chemigation applications are more dilute than ground or aerial applications. For best results, it is recommended to keep the concentration of ROTAM METHOMYL 90SP as high as possible in the application. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. ROTAM METHOMYL 90SP is most active as a contact insecticide, although it does also have activity via ingestion of treated plants. For best results, applications of ROTAM METHOMYL 90SP should take place when the insects are active and most likely to come into direct contact with the application.

**Types of Irrigation Systems** 

ROTAM METHOMYL 90SP may be applied through overhead sprinkler irrigation systems for control of various pests. Center pivot and lateral move irrigation systems are preferred. Other overhead sprinkler systems; such as end tow, side (wheel) roll and solid set, may be used if they provide uniform water distribution. Do not use filter screens smaller than 50 mesh throughout the system, due to possible build up of material on 100 mesh or smaller screens. Do not apply ROTAM METHOMYL 90SP through any other type of irrigation systems, except those allowed by instructions provided in a supplemental, SLN, or this product label.

#### **General Directions for Chemigation** Preparation

A pesticide tank is recommended for the application of ROTAM METHOMYL 90SP in chemigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Add 1/4 to 1/2 of the desired amount of water and then measure the required amount of ROTAM METHOMYL 90SP into the tank. Complete filling the tank by adding the required amount of water. Agitate thoroughly to insure a uniform solution of ROTAM METHOMYL 90SP. Once in solution, no further agitation is required. Injection solution should not be stored overnight. Highly alkaline water should be buffered so that the pH of the spray solution is in the range of neutral to slightly acidic (pH5-7)

#### Injection into Chemigation Systems

Inject the proper amount of the ROTAM METHOMYL 90SP solution to the irrigation water flow using a positive displacement injection pump. Injection should occur at a point in the main irrigation water flow to ensure thorough mixing with the irrigation water. For continuously moving systems, inject the solution containing ROTAM METHOMYL 90SP into the irrigation water line continually and uniformly throughout the irrigation cycle. Apply in no more than 0.2 inches of water per acre. For overhead sprinkler systems that are stationary, add the solution containing ROTAM METHOMYL 90SP to the irrigation water line, and apply no more than 0.2 inches of water per acre, just before the end of the irrigation cycle.

#### **Uniform Water Distribution**

The irrigation system used for application of ROTAM METHOMYL 90SP must provide for uniform distribution of ROTAM METHOMYL 90SP treated water. Nonuniform distribution might result in crop injury, lack of effectiveness or illegal pesticide residues in or on the crop being treated. Ensure the irrigation system is calibrated to uniformly distribute the chemigation application to the crop. Contact the equipment manufacturer, the local University Extension agent or other

experts if you have stions about achieving uniform distribution of the application.

#### **Equipment Calibration**

Calibrate the irrigation system and injector before applying ROTAM METHOMYL 90SP. Calibrate the injection pump while the system is running using the expected irrigation rate. If you have questions about calibration, you should contact your state extension service specialists, equipment manufacturer or other experts.

#### **Monitoring of Chemigation Applications**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of a responsible person, shall shut the system down and make necessary adjustments should the need arise. Wear the personal protective equipment as defined in the PPE section of the label for cleaners and repairers of application equipment when making adjustments or repairs on the chemigation system when ROTAM METHOMYL 90SP is in the irrigation water.

#### **Required System Safety Devices**

Do not connect any irrigation system used for pesticide applications to a public water system unless the pesticide label-prescribed safety devices are in place. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals at least 60 days out of the year.

- 1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

#### Posting of Areas to be Treated

Posting of areas to be chemigated is required when 1) any part of a treated area

is within 300 feet of pasitive areas such as residential areas bor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color, which sharply contrasts with their immediate background. At the top of the sign shall be the words "KEEP OUT", followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDE IN IRRIGATED WATER". Posting for chemigation does not replace other posting and reentry requirements for farm worker safety.

#### Operation

Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injection system according to the directions above. This procedure is necessary to deliver the desired rate per acre in a uniform manner. Apply ROTAM METHOMYL 90SP in 0.1 to 0.2 inches of water per acre. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system. End guns must be turned off during the application, if they irrigate nontarget areas or if they do not provide uniform application and coverage.

It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, wellheads and system safety devices be plugged to prevent contamination of these areas.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

#### Cleaning the System

Thoroughly clean the injection system and tank of any fertilizer or chemical residues using a standard clean-out procedure. Dispose of any residues in accordance with State and Federal laws. Consult your owner's manual or your local equipment dealer for cleanout procedures for your injection system.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid offtarget drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to

applications using double formulations.

1. The distance the outer most nozzles on the boom is 3/4 the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information

### AERIAL DRIFT REDUCTION ADVISORY INFORMATION Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150 -200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE **ENVIRONMENTAL CONDITIONS! See WIND, TEMPERATURE AND HUMIDITY**, and **TEMPERATURE INVERSIONS** sections of this label.

#### **Controlling Droplet Size – General Techniques**

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### **Controlling Droplet Size - Aircraft**

- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types and the lowest drift.
  - Boom Length For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
  - Application Height Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
  - Swath Adjustment When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downward edges

of the field, the accidance must compensate for this displayment by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

#### **BOOM HEIGHT**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. AVOID GUSTY OR WINDLESS CONDITIONS.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

#### AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can

result. It is the responsibility of the applicator to determine the sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

# AIR ASSISTED (AIR BLAST) TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.





Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Alfalfa	Pea Aphid Lygus Bugs Blotch Leafminer Aphids Egyptian Alfalfa Weevil Larvae Loopers Beet Armyworm Armyworm Alfalfa Caterpillar Fall Armyworm Western Yellowstriped Armyworm Yellowstriped Armyworm	1/2 – 1	7*	48 hrs
	Alfalfa Weevil Larvae	1		
	Variegated Cutworm	1/4 - 1		
	Do not apply more than a Do not make more than Chemigation: ROTAM ME	4 pounds of ROTAM ME 10 applications per crop. THOMYL 90SP may be a ghest listed rate of ROTA See CHEMIGATION sections	applied by overhead sprinkler chemigation. M METHOMYL 90SP. Apply in 0.1 to 0.2 on for more information.	
Anise (Fennel)	Cabbage Looper	1	7	48 hrs
	Beet Armyworm	1/2 - 1	,	40 1113
	Do not make more than1		THOMYL 90SP per acre per crop.	
Apple( Ground application only)	Apple Aphid Rosy Apple Aphid Tufted Apple Budmoth Green Fruitworm Tarnished Plant Bug  Codling Moth (10-12 day spray intervals)	1/2 - 1 *	14	72 hrs
	Leafrollers (Fruit-tree, Obliquebanded, Redbanded, Variegated) Lesser Appleworm White Apple Leafhopper Tentiform Leafminer Cutworm	1*		
	Do not use on Early Mac Do not apply more than & Do not make more than & is 7 days. * Apply in a minimum of \$	pounds of ROTAM MET applications per crop; n	THOMYL 90SP per acre per crop. ninimum interval between treatments	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI	
Asparagus	Beet Armyworm, Western Yellowstriped Armyworm Asparagus Beetle Spotted Asparagus Beetle White Cutworm Redbacked Cutworm	1/2 - 1	1	48 hrs	
	Variegated Cutworm	1/2			
		5 pounds of ROTAM MET 8 applications per crop.	HOMYL 90SP per acre per crop.		
Avocado	Western Avocado Leafroller Omnivorous Looper	1/2 - 1	1	48 hrs	
		Do not apply more than 1 pound of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 2 applications per crop.			
Barley	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs	
	Do not make more than Chemigation: ROTAM Notemigation. For best reading and the content of the c	4 applications per crop. METHOMYL 90SP may be esults, use the highest lister as of water per acre. See CTAM METHOMYL 90SP can when applied according to limit the appearance of new um ovicidal effect. Use on the trol, crop must be actively accorditions (such as, extrem wheat aphid need to begin	applied by overhead sprinkler drate of ROTAM METHOMYL 90SP. HEMIGATION section for more in provide contact ovicidal effect on abel directions. Application should viy laid eggs or in anticipation of egg this pest stage (egg) is not currently growing and not under stress from the temperatures or drought).		
Beans (Succulent) Including: Kidney, Lima, Mung, Navy, Pinto, Snap, Wax, Broad, Fava, Asparagus, Blackeyed peas Cowpeas, Chick peas,	Leafhopper Mexican Bean Beetle	1/4 1	Succulent Beans 1/4 – 1/2 lb 1, over 1/2 lb 3; 3 Vines 7 Hay	48 hrs	
Garbanzo beans, Sweet lupine, White sweet lupine	Fall Armyworm Variegated Cutworm	1/2			

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI	
Grain lupine	Corn Earworm Saltmarsh Caterpillar, Yellowstriped Armyworm Western Yellowstriped Armyworm, Lygus Bugs Thrips Aphids Loopers*	1/2 – 1			
	European Com Borer (Ovicide & Larvicide)— Initiate when moth flights first appear and-continue preventive treatments at 3-4 day intervals to control eggs and				
	Spotted Cucumber Beetle Succulent Beans - Do not apply more than 5 Do not make more than 6 * Do not use for Loopers	10 applications per crop.	HOMYL 90SP per acre per crop.		
Beans (Dry) (Follow Beans, Succulent)	(Follow Beans, Succulent)	(Follow Beans, Succulent)	14 - Dry Beans * 14 - Vines * 14 - Hay *	48 hrs	
	Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 10 applications per crop. Do not use for Loopers in AL & GA. *Do not apply within 14 days of cutting.				
Beets (Table)	Imported Cabbageworm	1/4 - 1	0 - roots 10 - tops	48 hrs	
	Beet Armyworm Cabbage Looper Diamondback Moth	1/2 - 1			
	Cucumber Beetle Variegated Cutworm	1/2			
	Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 8 applications per crop.				
Bermudagrass pasture	Fall Armyworm Armyworm Striped Grass Looper	1/4 - 1	7 - Forage * 3 - Dehydrated Hay **	48 hrs	
	Do not make more than 4 * Do not apply within 7 days	Do not apply more than 1 pound of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 4 applications per crop.  * Do not apply within 7 days of feeding forage or allowing livestock to graze.  ** Do not apply within 3 days of cutting for hay.			
Blueberries	Blueberry Leafhopper Aphids Tussock Moth Weevil Sharp-Nosed Leafhopper	1/2	3	48 hrs	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	RE	
	Cranberry Fruitworm* Cherry Fruitworm*	1/2 - 1			
	Flea Beetle (larvae) Sawfly (larvae) Blueberry Leafroller	1			
	Blueberry Maggot	1/4 - 1/2			
	Do not apply during bloc Do not apply more than 4 Do not make more than * For ground use only.	pounds of ROTAM METHOM applications per crop.			
Broccoli	Loopers, Diamondback Moth	1/2 - 1 **	.3	48 hrs	
	Imported Cabbageworm	1/4 - 1 **			
		10 applications per crop; m	HOMYL 90SP per acre per crop ninimum interval between treatments		
Brussels Sprouts	Loopers Imported Cabbageworm, Diamondback Moth	1/2 - 1 **	3	48 hrs	
	Variegated Cutworm	1/2 **			
Cabbana	Do not apply more than 6 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 10 applications per crop; minimum interval between treatments is 2 days.  ** Add a wetting agent to improve coverage.  Loopers * 1/2 - 1 ** 1				
Cabbage	Loopers * Diamondback Moth Fall Armyworm	1/2 - 1	1	48 hrs	
	Imported Cabbageworm	1/4 - 1 **			
	Variegated Cutworm	1/2 **		4	
	Do not apply more than 8 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 15 applications per crop; minimum interval between treatments is 2 days.  * Do not use for Loopers in AL & GA.  ** Add a wetting agent to improve coverage.				
Carrot	Beet Armyworm Armyworms Aster Leafhopper	1/2 - 1	1	48 hrs	
	Variegated Cutworm	1/4 - 1/2			
	Do not apply more than 7 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 10 applications per crop.				
Cauliflower	Imported Cabbageworm	1/4 - 1 **	3	48 hrs	
	Loopers Diamondback Moth	1/2 - 1 **			
	Variegated Cutworm	1/2 **		1	
			IOMYL 90SP per acre per crop.	I	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Celery	Beet Armyworm Aster Leafhopper	1/2 - 1	7	48 hrs
	Loopers	1		
	Variegated Cutworm	1/2		
	Armyworms	1/4 - 1		
	Do not apply more than Do not make more than	8 pounds of ROTAM N 10 applications per cro	METHOMYL 90SP per acre per crop.	
Chicory	Beet Armyworm Variegated Cutworm Leafhoppers	1/2 - 1	80	48 hrs
	Do not apply more than 2 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 2 applications per crop.			
Chinese Cabbage	Loopers Beet Armyworm	1/2 - 1*	10	48 hrs
	Do not apply more than 8 pounds of ROTAM METHOMYL 90SP/acre/crop. Do not make more than 10 applications/crop.  * Minimum of 25 gallons water per acre by ground or 5 gallons by air.			
Collards (Fresh market	Diamondback Moth Variegated Cutworm	1/2	10	48 hrs
only)	Imported Cabbageworm Beet Armyworm Loopers*	1/2 - 1		
	Do not apply when temperature is less than 50° F. Do not apply when crop is less than 10" tall. Do not apply more than 6 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 8 applications per crop. * Do not use for Loopers in AL & GA.			
Corn (Field, Popcorn & Seed)	Earworm (Ovicide/Larvicide) Armyworm Fall Armyworm European Com Borer- Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids	1/4 - 1/2	21- Ears 3 - Forage* 21 - Stover*	48 hrs
	Variegated Cutworm, Beet Armyworm	1/2		
	Do not make more than *Corn forage is green act then plants can be fed di	10 applications per cro tively growing plants the rectly to animals or us nain after removal of the	nat are harvested with the ears intact, ed to make silage. Com stover are the he grain at full plant maturity. These	
Corn (Sweet)	Earworm-Whorl as needed	1/3 - 1/2	•	48 hrs
com (onoti)	Fall Armyworm Armyworm Earworm,- (Ovicide/Larvicide)	1/4 - 1/2	0 - Ears 3 - Forage 21- Stover	701118

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
	European Corn Borer- Ears 1-3 days or as needed Corn Rootworm (adult beetles) Flea Beetles Picnic Beetles Aphids			
	Variegated Cutworm Beet Armyworm	1/2		
	area to determine crop : Do not apply more than	safety before full scale s 7 pounds of ROTAM M	eptible to methomyl injury. Treat a small spraying. ETHOMYL 90SP per acre per crop. p; minimum interval between treatments	
Cotton Ali U.S.	Ovicide/Larvicide - Bollworm, Tobacco Budworm (Initiate schedule when significant numbers of eggs are present Continue at 3 to 5-day intervals while eggs are present and larval control is adequate. If significant larvae survive, use higher rates below.) Lygus Bugs/Plant Bugs (adults and nymphs) start treatment on low level population for suppression.	1/8 - 1/4 (see Insect Predator Section)	15	72 hrs
	Cotton Leafworm Cotton Fleahopper	1/4 - 1/2 1/8 - 1/4		
	(as needed) Aphids, Thrips	1/4		
East of Rockies Only	(Early Season) Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant Bugs (adults and nymphs) Use as occasional spray in regular schedule but not more often than every 10	1/2		
East of Rockies	often than every 10 days.  (Late Season)	1/2 - 3/4	15	72 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Only	Bollworm, Tobacco Budworm, Beet Armyworm, Cotton Leafperforator, Fall Armyworm, Lygus Bugs/Plant			
	Bugs (adult and nymphs). Up to 3 applications at 3-5 day intervals after desired boll load set on plants.			
Texas	Cotton Aphid	1/4 - 2/3		
West of Rockies only	Larvicide for worms Bollworm, Fall Armyworm, Tobacco Budworm, Lygus Bugs Beet Armyworm	1/2 - 3/4		
	Cotton Leafperforator	1/3 - 3/4		
	For all cotton applicati Do not apply more than		ETHOMYL 90SP per acre per crop.	
	Do not make more than	8 applications per crop . If excessive stop or alte		
Cucumber	Do not make more than Use may redden cotton.			48 hrs
Cucumber	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm	If excessive stop or alte	mate with other insecticides.	48 hrs
Cucumber	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than	1/2 - 1  1/2 6 pounds of ROTAM ME	1/2 lb. – 1 Over 1/2 lb 3	48 hrs
Cucumber	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than	1/2 - 1  1/2 6 pounds of ROTAM ME 12 applications per crop	1/2 lb. – 1 Over 1/2 lb 3	
	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than	1/2 - 1  1/2 6 pounds of ROTAM ME	1/2 lb. – 1 Over 1/2 lb 3	
	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm Com Earworm	1/2 - 1  1/2 - 1  6 pounds of ROTAM ME 12 applications per crop 1/4 - 1 1/2 - 1	THOMYL 90SP per acre per crop.	
Cucumber  Eggplant  Endive. Escarole	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm Com Earworm	1/2 - 1  1/2 - 1  6 pounds of ROTAM ME 12 applications per crop 1/4 - 1 1/2 - 1	THOMYL 90SP per acre per crop.	48 hrs
	Do not make more than Use may redden cotton. Do not graze or feed.  Loopers Tobacco Budworm Beet Armyworm, Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm  Variegated Cutworm Do not apply more than Do not make more than Green Peach Aphid Tomato Pinworm (Ground Application only) Beet Armyworm  Do not apply more than Do not make more than Do not make more than Beet Armyworm	1/2 - 1  1/2 - 1  6 pounds of ROTAM ME 12 applications per crop 1/4 - 1 1/2 - 1  5 pounds of ROTAM ME 10 applications per crop 1/2 - 1  5 pounds of ROTAM ME	THOMYL 90SP per acre per crop.  5  THOMYL 90SP per acre per crop.	48 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
	Do not make more than ** Add a wetting agent	6 applications per crop. to improve coverage.		
Grapefruit CA, AZ & HI only	Thrips Fruittree Leafroller Orange Tortrix Westem Tussock Moth Beet Armyworm	1/2 - 1	1	72 hrs
		3 pounds of ROTAM METH 4 applications per crop.	HOMYL 90SP per acre per crop.	
Grapes East of Rockies only	Grape Berry Moth (apply pre- & post- bloom & repeat at 10-14 day intervals or as needed) Leafhoppers	1/2 - 1	1 - Fresh & Raisin 14 - Wine Grapes	7 days
All U.S.	Omnivorous Leafroller, Grape Leaffolder Orange Tortrix			
West of Rockies only	Saltmarsh Caterpillar Leafhoppers*			
only	Climbing Cutworm (Treat infestation and repeat at 7-14 day intervals as needed)	1		
CA only	Grape Leaf Skeletonizer*	1/2 - 1		
	Thrips	1/2 - 1		
	For all applications made to grapes in the United States:  Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 5 applications per crop.  * Leafhoppers & Grape Leaf Skeletonizer (Ground Application Only).			
Horseradish	Aphids Thrips	1/2	65	48 hrs
Ground application only		2 pounds of ROTAM METH 4 applications per crop.	HOMYL 90SP per acre per crop.	

Crops	insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Leafy Green Vegetables: Beet (tops) Dandelions, Kale,	Beet Armyworm Cabbage Looper* Diamondback Moth Imported Cabbageworm	1/2 - 1	10	48 hrs
Mustard Greens, Parsley, Swiss Chard, Turnip Greens	Do not apply more than 4 Do not make more than 8 * Do not use for Cabbage	applications per crop .	DMYL 90SP per acre per crop.	
Lemon CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Beet Armyworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 po not make more than 4 a		DMYL 90SP per acre per crop.	
Lentils	Western Yellowstriped Armyworm	1/2 - 1	21	48 hrs
		Do not apply more than 1 pound of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 2 applications per crop.		
Lettuce	Alfalfa Looper	1/4 - 1	1/4-1/2 lb 7	48 hrs
(Head and Leaf varieties)	Thrips Aphids Beet Armyworm Cabbage Looper Corn Earworm Aster Leafhopper	1/2 - 1	over 1/2 lb 10	
	Variegated Cutworm	1/2		
	Lettuce (head varieties)  Do not apply more than 8 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 15 applications per crop; minimum interval between treatments is 2 days.  Lettuce (leaf varieties)  Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 8 applications per crop; minimum interval between treatments is 2 days.			
Melons Including: Canteloupe Casaba Santa Claus melon Crenshaw melon Honeydew melon Honey balls Persian melon Golden Pershaw	Loopers Tobacco Budworm Beet Armyworm Yellowstriped Armyworm Granulate Cutworm Flea Beetles Cucumber Beetles Melon Aphid Melonworm Pickleworm Fall Armyworm	1/2 - 1	1/2 lb 1 over 1/2 lb 3	48 hrs
melon	Variegated Cutworm	1/2		
Mango melon Pineapple melon Snake melon Watermelon	Do not apply more than 6 p Do not make more than 12		DMYL 90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application - Days To Harvest	REI
Mint (Peppermint,	Variegated Cutworm Alfalfa Looper	1	14	48 hrs
Spearmint)	Flea Beetles	3/4 - 1		
	Do not apply more than Do not make more than	2 pounds of ROTAM METHON 4 applications per crop.	MYL 90SP per acre per crop.	
Nectarine	Thrips	1/2 - 1	1	72 hrs
CA & AZ only	Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 3 applications per crop.			
Oats	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	information.  *Cereal leaf beetle: ROT leaf beetle eggs when a correspond with the approximation ovicidal effect. California.  **Aphids: For aphid contadverse environmental of the contact of the contac	AM METHOMYL 90SP can propplied according to label directive earance of newly laid eggs or included the control of the control	ovide contact ovicidal effect on cereal ions. Application should be timed to n anticipation of egg hatch to achieve s not currently registered in	
	Beet Armyworm	1/2 - 1 **	7 - Green and	48 hrs
Onions (Green & Dry Bulb)	Thrips* Variegated Cutworm Black Cutworm	1 **	Dry Bulb Onions	
	Do not make more than days.  Onions, dry bulb  Do not apply more than treatments is 5 days.  *Chemigation: ROTAM is chemigation to control the per plant. For best result	4 pounds of ROTAM METHON 8 applications per crop; minimal METHOMYL 90SP may be applications. Begin applications before as, add a wetting agent. Apply interest of the control of the contr	um interval between treatments is 5  MYL 90SP per acre per crop.  um treatment interval between	

Crops	insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Oranges CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix Fruittree Leafroller Beet Armyworm Citrus Cutworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 p Do not make more than 4 a		HOMYL 90SP per acre per crop.	
Peaches	Catfacing insects (Plant Bugs and Stink Bugs) - begin at petal fall and continue in cover sprays at 7-to 10-day intervals Oriental Fruit Moth* -begin at petal fall; use trapping devices and frequent field inspection to determine need for treatment. Continue treatment in cover sprays and alternate with residual-type insecticides registered for this use. Green Peach Aphid	1 lb (or 1/4 lb per 100 gal up to 400 gal per acre)	4	4 days
Peanuts	Do not make more than 6 a * Oriental Fruit Moth (Grou	applications per crop. nd Application Only).	HOMYL 90SP per acre per crop.	
reanuts	Corn Earworm* Potato Leafhopper Fall Armyworm	1/4 - 1	21	48 hrs
	Beet Armyworm	3/8 - 1		
	Green Cloverworm Velvetbean Caterpillar Cabbage Looper Soybean Looper ** Thrips Granulate Cutworm	1/2 - 1		
	Do not make more than 8 at *ROTAM METHOMYL 903 **Soybean Looper is difficu	applications per crop. SP has ovicidal and larvious in the control.	HOMYL 90SP per acre per crop.  cidal control on corn earworm.  Use higher rate for severe infestations.	

applications per crop. 0 gallons of water per ac  1/2 - 1  pounds of ROTAM MET applications per crop; mi Loopers in AL & GA.  1/2 - 1  pounds of ROTAM MET	1 - Peas 5 - Forage 14 - Hay  HOMYL 90SP per acre per crop. inimum interval between treatments is 3	48 hrs
applications per crop. 0 gallons of water per ac  1/2 - 1  pounds of ROTAM MET applications per crop; mi Loopers in AL & GA.  1/2 - 1  pounds of ROTAM MET	1 - Peas 5 - Forage 14 - Hay  HOMYL 90SP per acre per crop. inimum interval between treatments is 3	
pounds of ROTAM MET applications per crop; mi Loopers in AL & GA. 1/2 - 1 pounds of ROTAM MET	5 - Forage 14 - Hay  HOMYL 90SP per acre per crop. inimum interval between treatments is 3	
pounds of ROTAM MET applications per crop; mile Loopers in AL & GA.  1/2 - 1 pounds of ROTAM MET	inimum interval between treatments is 3	
Loopers in AL & GA.  1/2 - 1  pounds of ROTAM MET	inimum interval between treatments is 3	
pounds of ROTAM MET		100
pounds of ROTAM MET		48 hrs
Aphids 1/2 - 1 30  Do not apply more than 7 pounds of ROTAM METHOMYL 90SP/acre/crop.  Do not make more than 7 applications per crop.		
1/2 - 1	3	48 hrs
1/4 - 1/2		
1		
European Corn Borer 1  Do not apply more than 5 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 10 applications per crop.		
1	14	48 hrs
pounds of ROTAM METI applications per crop.	HOMYL 90SP per acre per crop.	
1/2 - 1	6	48 hrs
1/2		
_	1/2	5 pounds of ROTAM METHOMYL 90SP per acre per crop.

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Potato (cont.)	chemigation. For best result Apply in 0.1 to 0.2 inches of *Repeat applications of RO needed, to control tuber we insecticides with different in populations as low as poss	THOMYL 90SP may be applied buts, use the highest listed rate of if water per acre. See CHEMIGA TAM METHOMYL 90SP on a 5-orm populations. An application shodes of action may be needed to ible prior to harvest to reduce the ly control tuberworm larvae prior damage.	ROTAM METHOMYL 90SP. TION section. 7 day schedule, or longer as chedule of effective to keep foliar feeding larval ansk of larval damage to the	-
Rye	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
	make more than 4 application. Chemigation: ROTAM ME chemigation. For best resurance information.  *Cereal leaf beetle: ROTAM cereal leaf beetle eggs whe timed to correspond with the to achieve maximum ovicid registered in California.  **Aphids: For aphid control adverse environmental control adverse environmental control control adverse environmental control contr	counds of ROTAM METHOMYL Stons per crop. THOMYL 90SP may be applied the list, use the highest listed rate of life water per acre. See CHEMIGAM METHOMYL 90SP can provide an applied according to label direct appearance of newly laid eggs all effect. Use on this pest stage of the life crop must be actively growing a ditions (such as, extreme temper leat aphid need to begin when a	oy overhead sprinkler ROTAM METHOMYL 90SP. TION section for more  contact ovicidal effect on ctions. Application should be or in anticipation of egg hatch (egg) is not currently  and not under stress from ratures or drought).	
Sorghum	Sorghum Webworm	1/2 *	14 **	48 hrs
Including: Sudangrass (Except Sweet Sorghum)	Sorghum Midge Apply when 50% bloom and 3-5 days later if needed. Fall Armyworm (Budworm) Beet Armyworm Corn Earworm Armyworm	1/4 - 1/2 *		
	Do not apply more than 1 p Do not make more than 2 a * Minimum of 10 gallons pe	ound of ROTAM METHOMYL 90 applications per crop. ar acre by ground or 2 gallons per ays of feeding forage or cutting for	acre by air.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Green Clover Velvetbean C Mexican Bear Com Earworr Light	Green Cloverworm Velvetbean Caterpillar Mexican Bean Beetle Corn Earworm Light to Moderate infestations	1/8 - 1/4 (see Insect Predator section)	14 - Soybeans 3 - Forage 12 - Hay	48 hrs
	Moderate to severe infestations	1/4 - 1/2		
Soybean Aphid	Soybean Aphid	1/6 - 1/3		
	Beet Armyworm Salt Marsh Caterpillar Bean Leaf Beetle Fall Armyworm Thrips Silver Spotted Skipper Light to Moderate infestations	1/4 - 3/8		
	Moderate to severe infestations	3/8 - 1/2	· · · · · · · · · · · · · · · · · · ·	
	Do not apply more than 1 make more than 3 applica		HOMYL 0SP per acre per crop. Do not	
Spinach	Alfalfa Loopers Cabbage Looper Beet Armyworm Fall Armyworm	1/2 - 1	7	48 hrs
	Variegated Cutworm	1/2		
	Do not apply when minim Do not apply to seedlings	um daily temperature is 32' less than 3" diameter. pounds of ROTAM METHO	° F, or lower.  OMYL 90SP per acre per crop.	
				1
Sugar Beet	Beet Webworm Flea Beetles Carrion Beetles Beet Armyworm* Aphids* Western Yellowstriped Armyworm*	1/4 - 1	30 -Tops 21 - Roots	48 hrs

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Sugar Beet (cont.)	Do not make more than 10 a *Chemigation: ROTAM MET chemigation to control beet a best results, use the highest	ounds of ROTAM METHOMYL 9 applications per crop. HOMYL 90SP may be applied be armyworm, aphids and western be it listed rate of ROTAM METHOM the CHEMIGATION section for me	by overhead sprinkler yellowstriped armyworm. For IYL 90SP. Apply in 0.1 to 0.2	
Summer Squash* Including: Crookneck squash Straightneck squash Scallop squash Vegetable marrow Spaghetti squash Hyotan Cucuzza	Fall Armyworm	1/2 - 1	1/2 lb 1 day over 1/2 lb 3 days	48 hrs
Hechima Chinese okra Bitter melon Balsam pear Balsam apple Chinese Cucumber	Do not make more than 12 a *Fruit of the Gourd (Cucurbit fruit is edible cooked or raw,	ounds of ROTAM METHOMYL 9 applications per crop. t accae) family that are consume once picked cannot be stored, the re harvested they would not gen	d when immature, 100% of the has a soft rind which is easily	
Tangelo, Tangerine CA, AZ & HI only	Thrips Western Tussock Moth Orange Tortrix, Beet Armyworm	1/2 - 1	1	72 hrs
	Do not apply more than 3 pounds of ROTAM METHOMYL 90SP per acre per crop.  Do not make more than 4 applications per crop.			
Tobacco (Except shade)	Flea Beetle Hornworm	1/4 - 1/2	5 - Flue cured 14 - Air or fire cured	48 hrs
	Loopers Aphids Tobacco Budworm Fall Armyworm	1/2		
	Do not apply more than 2.5 Do not make more than 5 ap	pounds of ROTAM METHOMYL oplications per crop.	90SP per acre per crop.	

Crops	Insects	Rate ROTAM METHOMYL 90SP Lbs. Per Acre	Last Application -Days To Harvest	REI
Tomato (Including Tomatillos*)	Tomato Fruitworm Aphids Hornworm Loopers Beet Armyworm Southern Armyworm Pinworm Armyworm Fall Armyworm	1/2 - 1	. 1	48 hrs
	Variegated Cutworm	1/2		
	Do not make more than 16	applications per crop. y more than 5 pounds	THOMYL 90SP per acre per crop of ROTAM METHOMYL 90SP per acre	
Turf (For use on sod farms only)	Sod Webworm (after application, sprinkle irrigate for 15 minutes)	1 (2/5 ozs. per 1000 sq. ft.)		48 hrs
	Do not apply more than 4 pounds of ROTAM METHOMYL 90SP per acre per crop. Do not make more than 4 applications per crop. Do not graze or feed.			
	Armyworms Cereal Leaf Beetle* Aphids**	1/4 - 1/2	7	48 hrs
Wheat	Do not make more than 4 a Chemigation: ROTAM MET chemigation. For best result Apply in 0.1 to 0.2 inches of information.  *Cereal leaf beetle: ROTAM cereal leaf beetle eggs whe timed to correspond with the to achieve maximum ovicid in California.  **Aphids: For aphid control, adverse environmental control.	pplications per crop. HOMYL 90SP may be ts, use the highest list f water per acre. See (I METHOMYL 90SP con applied according to e appearance of newly all effect. Use on this purpose crop must be actively ditions (such as, extremedite, use on the control of the	HOMYL 90SP per acre per crop.  applied by overhead sprinkler and rate of ROTAM METHOMYL 90SP.  CHEMIGATION section for more  an provide contact ovicidal effect on label directions. Application should be a laid eggs or in anticipation of egg hatch est stage (egg) is not currently registered growing and not under stress from the temperatures or drought).  begin when aphid population is low (<10	

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage: Store in a tightly closed container in a cool, dry place.

Prohibitions: Do not reuse empty container.

Pesticide Disposal: Pesticide spray mixture or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**SPILLS:** For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

In the event of a major spill, fire or other emergency, call CHEMTREC, day or night, 1-800-424-9300.

### CONDITIONS OF SEE AND LIMITATION OF WARRANT AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Rotam Agrochemical Company Limited or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Rotam Agrochemical Company Limited and Seller harmless for any claims relating to such factors.

Rotam Agrochemical Company Limited warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Rotam Agrochemical Company Limited, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ROTAM LTD MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, Rotam Agrochemical Company Limited or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ROTAM AGROCHEMICAL COMPANY LIMITED AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ROTAM AGROCHEMICAL COMPANY LIMITED OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Rotam Agrochemical Company Limited and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Rotam Agrochemical Company Limited.

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18 Cheung Lee Street
Chai Wan, Hong Kong
1-866-927-6826

Registered: [TBA]



## RESTRICTED USE PESTICIDE

**Due to high Acute Toxicity to Humans** 

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification. Direct supervision for this product requires the Certified Applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, repair or cleaning of application equipment.

GROUP 1A INSECTICIDE

# Rotam Methomyl 90SP Insecticide In Water Soluble Packets

Active Ingredient Methomyl		
(S-methyl-N-[(methylcarbamoyl) oxy]thioacetimidate)	90%	
Inert ingredients	10%	
TOTAL	100%	

EPA Reg. No. 83100 - TBA

EPA Est. No.: TBA

# KEEP OUT OF REACH OF CHILDREN DANGER POISON



Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements on inside booklet and back panel of container and Directions For Use on inside booklet.

# FIRST AID (N-Methyl Carbamate insecticide)

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

ATROPINE IS AN ANTIDOTE. SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If poisoning symptoms appear (see POISONING SYMPTOMS), get medical attention.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

#### PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** FATAL IF SWALLOWED. MAY BE FATAL IF INHALED OR GETS IN EYES. DO NOT BREATHE DUST OR SPRAY MIST.

Do not get in eyes or on clothing. Wear protective eyewear and respirator. Harmful if absorbed through skin. Avoid contact with skin. Wash hands thoroughly with soap and water after handling.

POISONING SYMPTOMS: Methomyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors. If poisoning symptoms appear, refer to First Aid section on the ROTAM METHOMYL 90SP label and seek medical attention at once.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

**TREATMENT:** Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg. intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to ROTAM METHOMYL 90SP alone. However, for exposure to combinations of ROTAM METHOMYL 90SP and

organophosphorous assecticides, 2-PAM may be used as received to supplement the atroppe sulfate treatment. Do not use morphise.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

#### PHYSICAL AND CHEMICAL HAZARDS

Keep container closed. Use with adequate ventilation.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

Storage: Store in a tightly closed container in a cool, dry place.

Prohibitions: Do not reuse empty container.

**Pesticide Disposal**: Pesticide spray mixture or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use

according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: For Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by state and local authorities, by open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SPILLS: For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call CHEMTREC, day or night, 1-800-424-9300.

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Net Contents: Packets/Container